



**UNIVERSITATEA BABEŞ - BOLYAI**

**Facultatea de Ştiinţe Economice şi Gestiunea Afacerilor Cluj Napoca**

**Şcoala Doctorală Facultatea de Ştiinţe Economice şi Gestiunea Afacerilor  
Cluj Napoca**

**Departamentul Contabilitate şi Audit**

# **TEZĂ DE DOCTORAT**

(REZUMAT)

**Student Doctorand SFETCU MARIAN**

**Conducător Ştiinţific**

**Prof. univ.dr. Partenie DUMBRAVĂ**

**Cluj Napoca, 2016**



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## **TEZĂ DE DOCTORAT**

**VALENȚE ALE PERFORMANȚEI AUDITULUI PUBLIC  
INTERN ÎN ÎNVĂȚĂMÂNTUL DE STAT DIN ROMÂNIA  
(REZUMAT)**

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## KEY WORDS

Internal public audit, external public audit, financial audit, internal control, corporate governance, management system, aims, performance, efficiency, effectiveness, earning capacity, quality, resources, planning, risk analysis, communication, reports, recommendations, audit report, hypothesis, descriptive analysis, regression logistic analysis, Ordered Logit Model, methodological factor, management and governance factor, social and behavioral factor.

## INTRODUCTION

The contemporary society development leads directly to ensure the confidence of investors , state , employees , etc. with their own organizational structure , which aim to constantly evaluate and manage efficient, effective and economic entity's resources , such as and the entire management system.

The current context , in which public entities in the area of research are aligned with the European context, through funding programs (Leonardo Da Vinci , Comenius , other POSDRU programs etc. ) , obliges the adaptation of these entities for the permanent improvement of the management of resources . The performant internal audit structures have the ability to provide performance feedback through a risk treatment at a high level of accuracy, according to new policies and funding and ensure users of audit reports to a high level of trust. „Effective risk management helps boost the entity's performance by finding and using methods and analysis techniques increasingly more complex , namely a system of indicators to measure performance” (Brătian C., 2010).

Research of the links that define the internal audit performance of educational institutions in Romania , lead to a thorough understanding of audit issues in real-time detection of malfunctions and their appropriate remedy. This scientific approach is structured in five chapters , which **seek to intercept the links between performance indicators of audit of education and the influence of these links on the audit performance in relation to the performance of the public.**

## MOTIVATION, RELEVANCE AND AIM OF THE RESEARCH

The importance of researching the valences of the internal audit performance in education is given by a new approach to this issue, to show the interdependence of performance indicators that define the internal audit, in terms of quality, based on mathematical analysis , statistical analysis and use of the information system. **Research on the links of the performance of internal audit contributes to the knowledge of the current position of the audit** of the research area, through the auditors, managers ( CEOs , business executives , general inspectors and deputy general inspectors ) and financial administrators, and analysis of the possibility to insure feedback to public entities in the area of research through the internal audit structures. **This approach was born of the need to know the possibility of adapting the internal audit to the new requirements of socio - economic and technical faced and public entities .**

Analysis of the links between indicators that define performance audit in the area of research , ensures brought knowledge to audit issues. **This analysis is part of the scientific approach to the management of internal public audit structures in the area of research, in order to highlight its contribution to ensuring the performance of public entities.** In this context, the research **will show the capacity of the internal audit function to help strengthen the insurance management, the efficient and effective risk management and the efficient, effective and economic use of resources of the public entity.** Knowing the possibilities of providing performance audit structures in the area of research leads to: **determine the development needs of internal audit in the public sector, to identify the causes underlying disorders and creating opportunities for development and implementation of a development strategy and not least, providing knowledge to the research performance of internal public audit at the education system level.**

Research on the internal public audit performance, is considering the impact of using methods and techniques of management by using **Dashboard** (Niclescu O. and I. Verboncu, 1999) and **Balanced scorecard** (Brătian C., 2010), in evaluating internal public audit performance. Also, we try to capture the relationship between

**control systems, governance, information and internal public audit** and how the audit contributes to the performance of the public entity.

**The aim of this approach is to analyze the links established between the indicators reflecting the performance of the internal public audit, to identify weaknesses in the internal audit system of education and to establish the role and importance of the audit structures within the management system of public entities in education.**

The scientific approach aims to analyze, based on regression modeling, valences established between the management system of internal public audit and the entity of the research area. We also want to establish the audit contribution to ensuring the performance of public entities and structures audited, to ensure the management of efficient, effective and economic use of resources. For this, we find significant information systems evaluation, decision making, control and governance within public entities in the area of the research.

### **RESEARCH METHODOLOGY USED**

To highlight developments in internal public audit and the internal public audit performance in this scientific research, we used historical analysis by describing and fixing events concerning references to evolution control and audit activity, in chronological order. Also for analysing the management system, the methods, procedures and techniques used in audit activity, analysis and deduction has been used, method of research that led to the detachment conclusions. In this thesis, we approached from a quantitative perspective, case studies on the impact of the depreciation of the auditors on the basis of mathematical modeling using exponential function derived in relation to underfunding the training of public auditors in the area of research, namely the link between auditing and risk level by using the tool  $\chi^2$  and the association coefficient C of Pearson. These case studies on the audit structure, are relevant in account to the performance of internal public audit.

Empirical research, was conducted by setting research goals and choosing the method of obtaining the necessary information chesionarului method (S. Chelcea,



2007, pp. 212-213). **The questions had a qualitative character with the possibility that the answers received from the research area to be quantifiable.** The responses received were analyzed descriptively. Also, regression analysis was used to determine links between logistics performance indicators and research on the influence of these proven links respectively correlational analysis with Spearman test, to research the links among staff audit structures and behavioral variables.

### **RESEARCH AREA AND AIMS OF THE INVESTIGATION**

**The research area** on this scientific endeavor, **is the public education entities in Romania\_ organizing audit structures defined by the county school inspectorates for schools and the universities of Romania.** This research was attended by internal auditors, managers and financial directors and chief accountants of these public entities. Were not subject to this approach, service Internal Audit of the Ministry of National Education representing the structure of audit functions of annealing in the area of research and the responses received can be predictable and generalist or audit structures of the university state defense and national security which are subject to methodological and organizational ministries.

From another point of view, the research areas of this thesis, is the descriptive analysis, regression logistic analysis and correlational analysis of the results obtained from survey respondents in the research area.

**The objective of this scientific approach is,** as mentioned above, **the research of the relations between performance indicators of internal audit in public education in Romania and their impact on the audit performance, in relation to the performance of public research area,** through descriptive analysis of the results obtained from respondents and logistic regression analysis.

Determination of the place and role of the internal public audit management system of public entities organizers of the audit structures of public education and

capacity of the audit to ensure the performance of these public entities and of the subordinated structures, has regarded, in our opinion, the following considerations:

- Ensuring and respect for the independence of the internal audit structure by managing the public entities and its concern for motivating auditors;
- The subordination of internal audit structures at the highest organizational level within public entities (result of the regulation and standardization, but also of the research of the hypotheses formulated below);
- The impact of resources in relation to the current economic and social situation, on the performance of the internal audit and the auditors individual behavior;
- The internal audit structures ability to ensure the performance of public entities, of audited structures and their feedback.

We believe that the links established between performance indicators of the internal public audit, pursue the following issues:

- Demonstrating the existence of links between performance indicators governing internal audit in the area of research;
- The existence of the premises of ensuring performance of the audit structures and performance of the public entity, by the audit structures;
- Potential development of internal audit in the public educational entities; Social and behavioral influence on the performance of auditors and audit public entity.

For correlations between personal characteristics of auditors and behavioral variables, we focused on the following considerations:

- The existence of links between the personal characteristics of auditors from the educational system and behavioral variables;
- The influence of personal characteristics on behavioral variables, on the basis of proved links;
- Contributing to ensure internal audit performance based on personal characteristics and performance of the public entity through audit structures, demonstrated through the personal characteristics.

The analysis of the links that define the performance of internal audit in the area of research was carried out by auditors, managers of public entities (rector, vice rector, dean, vice dean, managing director, managing educational inspector, deputy managing inspector member of the Board administration) and financial managers (chief accountant, accountant, standardization advisor - remuneration, human resources inspector), from public education in our country. By corroborating objectives, we plan to perform a projection of development opportunities and assurance audit of educational performance, building on the results of this research, based on analysis and deduction of the qualitative research conducted.

### **STATUS OF THE SCIENTIFIC RESEARCH**

The audit issues is vast. Establishing a research stage on the performance of the internal audit is subjective, bearing on the very large volume of information available both nationally and internationally.

The current status of research on internal public audit in our country, is showed by the approaches in the research of the development of objectives, from the audit defined enough, with procedures more specific to control, for the beginning period 1999 - 2003, to the insurance and counseling oriented audit (Bota Abram C. 2009), respectively professionalized internal public audit (HG 1259 from 2012) or system and performance audit (GD 1086 from 2013). Another approach to research is the relationship between the audit and the management and its role in corporate governance (A. Morariu and staff, 2008, Ghita M., 2008; Bota Avram C. 2009, D. Matis, A. Bota 2010 ), the place and role of audit in the entity control system (Boulescu M. Cornel Bârnea, 2006; Morariu A. and staff, 2008; Ghita M., 2008; Crisan C., P. Dumbrava, 2007), and in the financial audit (Tiron - Tudor Popa A. IE, 2010), the authors highlight the methods, techniques and tools used in financial audit and the list goes on.

The empirical research of the issue of links between performance indicators of the internal public audit in the education system in Romania, was preceded by conducting case studies in the department of internal public audit on **the analysis of relations between auditing and risk level** (P. Dumbrava, Sfetcu M ., 2013) **and the**

**impact of the depreciation of the public internal auditors work on performance audit** (Sfetcu M., 2013). The authors analyzed through mathematical and statistical modeling the financial resources influence on professional impairment of auditors, as effect of current economic constraints on the auditors training and the impact of this depreciation on the audit performance.

## **Cap. I. CONCEPTUAL CLARIFICATIONS, NOTIONS AND CATEGORIES CONCERNING THE INTERNAL PUBLIC AUDIT PERFORMANCE**

### **1.1. Conceptual delimitations, importance and role of the research on issues of internal public audit**

**Conceptual delimitations concerning the issues of internal public audit.** **Internal public audit** is a component of the control system of the public entity. Definition of internal audit in the public sector has its origins in the "International Standards for the Professional Practice of Internal Auditing" and "Code of Ethics", applicable in each country adhering to the "Institute of Internal Auditors' (The Institute Internal Auditors - IIA).

**The internal public audit performance** is the sum of indicators that define effectiveness, efficiency, economy and quality of internal audit in the public sector.

**Efficiency** is defined as the ratio between results and total expenses involved in the activity being audited. **Effectiveness** is the activity that produces the expected effects, which is positive<sup>1</sup>, or the ratio of the planned results and outcomes<sup>2</sup>, established by planning the audit, communication and approval, methods, procedures, tools and audit techniques used. **The economy** is minimizing the cost of resources

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<sup>1</sup> Vasile Breban - Dicționar explicativ al limbii române, Editura științifică și enciclopedică, București, 1980;

<sup>2</sup> Curtea de Conturi a României – Manualul auditului performanței, București, 2005;

allocated to achieve estimated results of an activity, maintaining appropriate quality of these results<sup>3</sup>. **The audit quality**, although it was not included so far in defining performance, we believe it is the degree of assurance of efficient, effective and economic use of resources, linked with providing feedback and achieve public entity goals.

The public audit is also organized as external audit of public institutions, regulated and normalized by the Romanian Court of Accounts - also considered a supreme audit structure<sup>4</sup>, organized and exercised by the Boards of County Auditors. The Court Rooms of Auditors carry out regular audits activity of public institutions based on their own rules and performance audits of public entities on the basis of INTOSAI standards.

Another important activity of public entities, also defined in the management literature<sup>5</sup>, is **the control**, object of the internal audit. Control is a function of the entity's management through which its performance is quantified and compared to the objectives and standards set out above.

At the entity level, the control system is composed of internal audit, management control, financial control, hierarchical control, administrative control, own preventive financial control, operational control of managers subordinated to the general manager and control carried out at paperwork in terms of compliance with legislative framework.

**Corporate governance** is another important element influencing the internal audit activity, in addition to risk management and control system of the entity<sup>6</sup>. In Romania corporate governance principles are being applied, provided by the Organisation for Economic Co-operation and Development. These principles have emerged in 2001 after their adoption at the Round Table organized by the National Commission of Immovable Values, the Stock Market in Bucharest and the OCDE

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<sup>3</sup> Legea 672 / 2002 modificată și republicată privind auditul public intern;

<sup>4</sup> Legea nr. 94 / 1992 privind organizarea și funcționarea Curții de Conturi, republicată;

<sup>5</sup> Ovidiu Nicolescu, Ion Verboncu – Fundamentele managementului organizației, Editura Economică, București 2002 ;

<sup>6</sup> M. Ghiță, D. Țogoe, I. Croitoru, R. Ghiță - Guvernanța corporativă și auditul intern, Editura Europlus, Galați 2010;

Centre for private sector development. The corporate governance system ensures separation of powers of the management of public from the hierarchically superior entities, the municipalities and the users of audit reports. The corporate governance can be defined as a system of standards by which public entities are directed and controlled to ensure objectives through the efficient and effective risk management.

At the level of private sector entities, financial audit is the activity of a person affiliated with a professional organization, the Chamber of Financial Auditors of Romania and issuing an opinion on the entity's financial statements, based on International Standards on Auditing, based on an independent and objectives evaluation of risk management, control and management processes.

**The role of research on the issue of internal public audit.** The valences research of internal public audit performance in the education system, was born from the idea to complete the knowledge of this issue, but without pretending to be complete meaning that research in this field are dynamic and also keeping step with the economic and social realities. Through this research, we tried to capture the impact of the diminishing financial and material resources on internal audit activities in the area of research, but also on the auditors through the degree of motivation in relation to respecting their independence and integrity. At the same time, we tried to capture the existence and influence of the links established between performance indicators of the audit and to prove the possibility of removing the observed dysfunctions and the direction of development of the internal audit. We also tried to capture the audit performance through qualitative research based on mathematical modeling of the results of the research area, this approach never being carried out before in researching the internal audit performance issues in the education system.

The regulatory and standardization of internal audit in the area of research is very rigid and does not allow analysis approach than in terms of the governed. In the current work of internal audit situation requires the use of methods and analysis techniques different than those indicated in normalization, which prompted us to approach research knowledge and the impact of using Balanced Scorecard and Dashboard within the internal audit activity as management methods and techniques.

Under the same issues, we showed the methods, techniques and tools for financial auditing, in relation to the possibility of applying it in internal audit activities.

## **1.2. The evolutionary process concerning the performance of the internal public audit**

**Evolution of the context in which crystallized the need for internal audit in public education in Romania.** Etymologically the term of audit originated in Latin and means "to listen". The audit has roots in ancient times, but known in other forms, oriented towards control and verification, depending on the respective social needs<sup>7</sup>.

Historical sources revealed accounting and control activities from the time the Egyptians and exercised by recording an economic transaction by two scribes. In the Middle Ages, Luca Paciolo, in his book<sup>8</sup> describes the methods and techniques of managing monastery heritage in double counting and is the base concept sheet of "double counting" and "fidelity heritage", which are used nowadays in accounting, representing the object of the audit.

In 1855, the United Kingdom Parliament enacted the "Law on the shares of UK companies", by which a shareholder was required to verify their economic operation materialized in the balance sheet, then later being checked by an independent person called a "verifier".

The United States of America appears the conceptualization of the accounting business activity in 1887 by establishing the American Institute of Certified Public Accountants – AICPA. In 1950, IIA issued its first internal audit rules, which subsequently became Standards of internal audit, different from the external audit. With the establishment of IIA, it is believed that the internal audit was born and their reports are analytical elements of the external audit.

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<sup>7</sup> Collins Lionel, Valin Gerard - Audit et contrôle interne, 4-e édition, Editura Dalloz, Paris, 1992.

<sup>8</sup> Luca Paciolo, Suma di aritmetica, geometria proportioni et proportionalita, 1492

In the Carpatho-Danubiano-Pontic area, control elements were discovered during the Dacian king Burebista (82-44 BC.)<sup>9</sup>. After the conquest of Dacia by the Romans (106 AD), it was recorded in the writings of the historian Josephus Flavius by collectors of revenue and produced fruits of their land. After the Aurelian withdrawal (273 AD), until the period of formation of the political states in principalities named "cnezate" and "voievodate", historical records do not indicate activities in Romania stating control elements of the administrative activities of these social formations.

After the forming of the political states (Sec. IX-XIV), the voievode was having military, administrative and judicial privileges, and he sometimes imposed oppressive taxes.

Between 1831 - 1858, there was the reorganization of the country's finances by adopting in Romanian Country and Moldova the "Organic Regulations"<sup>10</sup>, which introduces control, which administratively was seeking registration in accounting board and ministers were required to present at meetings, calculations by which those transactions were carried out, supported by documentary evidence. On January 24, 1864 Lord Al. I. Cuza promulgated the law on the establishment of the High Court of Auditors<sup>11</sup>.

In 1918 it is established the Financial Guard, "a body of fiscal control". During 1945 - 1990 the economic and social situation was changed, in 1948 when the communists took power, they abolished the High Court of Accounts and the Financial Guard. In 1959 it established the internal financial control<sup>12</sup>, with the objectives on the accounting of enterprises, subordinated to the head of the unit. After 1990, the social and economic orientation, from centralized economy to a market economy, imposed reorganization of the institutions disbanded in 1945. The Court of Auditors

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<sup>9</sup> Marcu P. – Istoria dreptului românesc, Ed. Lumina Lex, București 1997, pag. 28;

<sup>10</sup> Bostan I. -Controlul financiar, Editura Polirom, Iași, 2000, pag. 18;

<sup>11</sup> Boulescu Mircea - Curtea de Conturi - tradiție și actualitate, Editura Expert Consult SRL, București, 1993;

<sup>12</sup> Decizia Consiliului de Miniștri nr.1598 / 01.12.1948, și H.C.M. nr. 74 / 1959, publicată în Colecția de hotărâri și decizii a Consiliului de Miniștri nr.8 / 01.02.1959



is established<sup>13</sup>, and in 2009 the external supreme public audit institution is the Financial Guard, control institution on financial and accounting activity of the economic entities.

The financial audit has developed, in Romania<sup>14</sup>, defined, and the external audit, performed by independent professionals, members of the Chamber of Financial Auditors of Romania, regulator and normalization authority, respectively internal audit, conducted by employees of the economic entity, subordinated to the Board of Directors or its director.

The internal public audit, has evolved since the separation of financial control, until the professional certification of auditors and the organization of the cooperative system, which leads to the professionalization of the internal public audit and strengthen the confidence in the internal public audit structure.

**Aspects concerning the performance evolution of the internal public audit. OU 119/1999, as amended by EO 46/2000, is the birth certificate of the internal public audit.** According to it, the internal audit is defined as "an activity organized independently in the structure of a public institutions and under direct authority of its director, **which is to conduct checks, inspections and analyses of their on system of internal control, to assess the objectives of the measure,** as it ensure that the objectives of the public institutions are carried out and the resources are economically, efficiently and effectively used and to report the findings, the weaknesses identified and the measures proposed to correct deficiencies and improve the performance of the internal control system to the management. The key elements of the performance evolution of the internal public audit represents finalizing the normalization (2003) establishing a Code of Professional Ethics (2004), cooperatuon of the audit structures and professional certification of auditors (2012) and amending the rules for the exercise of audit by approaching IIA standards(2014).

**Attestation of auditors is a settlement of the professional training by moving the center of responsibility from the management of the public entity, the allocation of budget credit on their professional training, to the interests of**

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<sup>13</sup> Legea 96 / 1991

<sup>14</sup> Ordonanța de Urgență a Guvernului nr. 75 / 1999 și aprobată prin Legea nr. 133 / 2002;

**individual training through personal means, in relation to the evidence of annual professional training for maintaining their certification not losing their jobs.**

### **1.3. Notions and the evaluation of the indicators system concerning the performance of the internal public audit**

**Performance evaluation of internal audit management objective.** A **method** is a way of research, a set of techniques used to obtain a result and **the technique** is a set of processes that achieve a result (Breban V., 1980). **Performance evaluation of the management** is based on methods of analysis and of evaluation of the management system, through specific methods, aiming at the establishment of management principles and redesigning them if they do not fulfill their objectives efficiently, effectively and economically (Nicolescu O., Verboncu I, 2008, p. 37).

Management methods (Nicolescu O., I. Verboncu, 1999, pp. 344-365), specific to the management activities are given by: **management by objectives, project management, product / service management, management through budgets, management by exception, participatory management.**

**Performance evaluation of the management of public entities is performed by the internal audit structure,** by using the techniques of critical analysis and diagnostic analysis **and aims the methods of management, the system of goals, involving of staff, evaluating the control system, adopting a complex motivational system based on rewards and sanctions and developing of the organizational culture.**

**The internal public audit is part of a management system that provides control function - public entity rating.** In terms of management, **performance evaluation of the audit structure** is based on critical analysis and analytical methods for diagnosis, as defined above. Evaluation of the entity's performance by the internal public audit structure is carried out through continuous improvement of risk analysis techniques and aims to establish the use of resources and risk management.

**Economic and financial analysis** is a method used by auditors to assess the financial performance of the public entity by applying the technical analysis of the

added value, the management of human and material resources to identify the factors, the causes that led to the phenomenon and its evolution (Vâlceanu Ghe. and staff, 2005, p. 15).

**Mathematics and statistics analysis** is a method used by auditors to assess risks in the audit planning process and in the process of establishing samples for conducting the tests.

**Balanced Scorecard** is a management tool by which the main and specific goals are established and pursued. **The dashboard** is a management tool used by the head of the organizational structure in which current information, concerning the main activities of the organizational structure and factors acting on their development, are by default and synoptically presented (Nicolescu O Verboncu I., 1999 , p. 379).

**IT evaluation methods** are tools that provide treatment risks based on statistical applications (Buiga A. 2009), and the use of spreadsheets (Department of Economic Informatics, 2009).

**The qualitative indicators system.** The internal public audit performance evaluation is based on a system of indicators consisting of efficiency, effectiveness and economy of the internal public audit.

**The effectiveness of the internal public** audit as defined above, as the ratio between resources and results are analyzed based on the resources used, the results and the compliance with the code of ethics.

**The analysis of used resources,** is an indicator of qualitative analysis of the effectiveness of internal public audit and aims the human, financial and material resources available to the audit structure, the size of area audited, the risk management and the goals of the audit, established based on risk analysis and the signal criteria.

**Plan for professional training of the auditors.** Compliance of the objectivity in the performance of the internal public auditor function, of the independence, without constraints, leads to the goals and missions and fosters the quality and performance of the audit by formulating recommendations through an objective assessment of the risk, the findings and conclusions.

**Sizing the material and financial resources** of the audit structure is another indicator of qualitative analysis of the internal public audit.

**The professional training and the competence of the auditors** (Law 672/2002), are indicators for specific qualitative human resources within the internal public audit structure and affects the quality of auditing the entity through continuous improvement, developing the qualities and skills of auditors (Bota Abram C. 2009 , p. 41).

**Professional competence is the professional training feedback.** It is the benchmark underlying the internal public audit quality analysis and it is determined by the complexity of the objectives set by the Plan for Vocational Training with the complexity of the audit activity objectives.

**The objectivity of the auditors** is also defined as their "moral independence" (Bota Abram C., 2009, p. 41).

**The independence of auditors** shall be addressed with organizational independence, in terms of subordination of the audit structure only by the manager, the board of directors or the audit committee, and having a distinct and independent function from any other activity of the entity (MPA 1120 - 1; MPA 1130-1 ).

**The risk management** is based on an effective control system within the entity, used to permanently analyze (OMFP 946/2005 republished), based on **risk register**, the Commission's work of implementation / monitoring of internal control (OMFP 946/2005) and the degree of its update.

**The level of workload of the auditors with other tasks** is an important indicator in defining efficiency. Although it is an indicator that belongs to objectivity and independence, its generalization leads to analyzing it individually.

**The results**, indicator of efficiency of the internal public audit are given by the assurance of the objectivity of recommendations, the compliance with the implementation schedule of the recommendations, the correct and straightforward choosing of the recipients recommendations and the follow-up of the recommendations contained in the audit report to provide feedback and the added value created.

**The pursuit of the recommendations.** It is a qualitative indicator of the effectiveness of the internal public audit and it is analyzed based on the implementation schedule of the recommendations contained in the report of the internal public audit. People who need to receive and manage the information contained in the audit report shall be established at the start of raid on the spot by recording in the **memorandum of the opening session. Effectiveness of the internal public audit**, defined as the ratio between results and scheduled results as stipulated by the INTOSAI standards, can also be applied to the internal audit of the public entities.

**The role of the internal public audit is to ensure the management through whereby the fundamental, derivative and specific goals can be met with efficient, effective and economic use of the resources of the public entity.**

**The planning of the internal public audit** is carried out based on the risk analysis for prioritizing the auditable goals, as to obtain the added value of the audited structure.

From the practice of the internal audit of the public entities, the audit planning materializes in the **Annual Audit Plan** and is based on **The justification essay**, approved by the head entity and refered by the head of the upper structure of the audit, as guarantor of the independence of the audit structure, by subordinating them at the highest level.

**Communication and approval.** It is an indicative of qualitative analysis of the effectiveness of the internal public audit and is based on independent audit structure of the public entity, subordonated directly to its director (Law 672/2002 as amended and republished).

**Audit procedures.** In terms of qualitative analysis of the performance indicarors system of the internal public audit, the audit procedures, as a specific indicator of the effectiveness of the audit, the analysis is conditioned by the reliability and objectiveness of the procedures used in risk analysis, the sampling and reducing of the audit risk, the sampling and testing of the auditable objects, or the content and how to use the audit tools.

**Economy**, is a qualitative indicator that contributes to the performance of the internal public audit, defined as the ratio of cost minimizing of the resources used to achieve the estimated results of an activity, by maintaining appropriate quality of these results.

**The quantitative indicators system.** The research on the quantitative indicators system complements the qualitative research area and provides a complete picture of the whole area of research. Addressing the quantitative indicators that underlay the performance of the internal public audit, ensures the surprise of its dynamics in evolutionary terms.

**Efficiency.** The quantitative approach of the effectiveness of the internal public audit ensures the evolutionary analysis of this system of indicators, by individual quantification of the indicators that make up the system, analyzed in terms of quality.

**The professional training of the auditors** depends on the size of the budget allocated for this purpose. The professional training is done through the Professional training plan, through the Annual report on the activity of the internal public audit in the public entity.

**To highlight the importance of the professional training, it has been considered an empirical research on the level of average salary of auditors in secondary education system and the need of financial assurance of the professional training, resulted from the number of rules for the staff in the secondary education system in Giurgiu County in relation to the number of students, the number of existing rules and the budget approved by the laws of the state budget of that period. The research method** used was quantitative analysis<sup>15</sup> using the exponential function based on mathematical modeling methods and techniques. **From the case study, we concluded that** using mathematical modeling in internal public audit adds to the audit role within the public entity by scientific risk assessment, meaning planning the professional training of the auditors

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<sup>15</sup> Chelcea S., (2007) - Metodologia cercetării sociologice, metode cantitative și calitative, Ediția a III-a, Editura Economică, București;

and detecting their training needs. Although these deficiencies can be remedied by outsourcing the audit, the issue of risk management in the public entity can not be improved because of the following: audit executed by service-based contract shall be undertaken only to the goals set by the contract and exercised only in the financial management - accountant, other activities (human resources, legal, school inspection) are not audited against the internal public audit, which examines all activities of the public entity; in practice it has been found that the external that carries out the auditing of the entities under contracts for services, presents vices of independence from management, meaning that to keep the contract, external auditors compile audit reports in a form acceptable to management<sup>16</sup>.

This case study demonstrates that the use of mathematical modeling to analyzing the professional depreciation of the auditors, is an effective tool, within auditors and managers of human resources reach.

**The objectivity of the auditors**, although it is a qualitative indicator, is measured by evaluations of the top structures, UCAAPI, evaluation of the Account Court structures or evaluation by management of the public entity, based on the **Declaration of Independence**, the **Evaluation of the audit mission card** or the documents of the audit mission (checklists, tests, finding documents, momerandum of the counseling session, the report of the audit mission).

#### **1.4. Methods and techniques of evaluation used in the evaluation of the internal public audit**

The evolution of the Internal public audit performance was performed by quantitative and qualitative analysis of the system indicators grouped in efficiency, effectiveness and economy. The qualitative and quantitative analysis of these indicators was based on specific evaluation methods and techniques.

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<sup>16</sup> A. Tiron Tudor și I.E. Popa – suport de curs, p. 11;

The methods of performance evaluation of the public entity management varies depending on activities and depending on the specific environment in which the public entity operates. By definition, **the method is the way of researching the objective reality and the instruments are elements which are analyzed using methods** (S. Chelcea, p. 68).

The evaluation of the management performance is made using methods / tools of the **Balanced Scorecard** and **the performance indicators**, the Enterprise Resource Planning systems - ERP (D. M. Resh, 2010) and the **Dashboard**. The advantages of using the Balanced Scorecard are given by the strategy definition of the public entity, the development of inter and intra-institutional communication, professional development of the human resources and complex human resources motivation based on rewards and sanctions. The considered limitations are the poor technological support, the poor integration with other systems and limited human and financial resources. The dashboard includes balanced information, that is accessible, responsive and advisable and is an effective management tool that helps detect real-time risk due to the possibility of comparing information and determining the time evolution of the relevant indicators. In this regard, evaluation tools and techniques are **mathematical analysis, economic and financial analysis , statistical analysis** used in the evaluation of financial performance and non-financial indicators, and the indicators of ERP systems and the indicators that define Balanced Scorecard and Dashboard.

**The economic and financial analysis** is a method of evaluations of the economic and financial performance (Margulescu D., 1994) of the public entity.

**The role of the internal audit in assessing the performance of the public entity shall be exercised through risk management based on the performance indicators system continuous assessment of integrated in the entity, the management system and the way of compliance of the objectives.**



### **1.5. Opinions and suggestions on the concept, the notion and the category of the internal public audit performance**

From the analysis, we concluded that the management system of public entities is subject to internal public audit through the control function - evaluation and also establishes its place in the audit. Knowledge of the management methods is necessary because it is the underlying of the system audit missions planning, performance or regularisation, depending on the signal or low risk criteria existing in the public entities, in relation to the degree of fulfillment of the goals. Although the tendency of the internal public audit is geared towards ensuring the goals of the public entity by conducting audits missions of performance or system (GD 1086/2014), is more than necessary, the use of assessment methods specific to the management - diagnostic analysis, critical analysis, taking into consideration that regulatory and normalization framework restricts the use of methods to the matrix analysis (OMECTS 5281/2003) and the risk analysis based on the assessment of their level according to predetermined criteria through the normalization framework (GD 1086/2014) to determine their level. The most important issue drawn from the analysis, is the negative influence of the economic constraints which was manifested by the reduction of budgets, job cuts, with negative effects on the possibility to ensure the manage on the use of resources. The functionality and improvement of the audit is subject to the legislative and normalization factor, the understanding of the management concerning the importance and the issues of the internal audit and ensuring the competence, independence and integrity, which are key factors.

## **Cap. II. DIAGNOSIS OF THE PUBLIC ENTITIES MANAGEMENT SYSTEM OF THE PUBLIC EDUCATION SYSTEM IN ROMANIA AND THE ROLE OF THE INTERNAL PUBLIC AUDIT**

### **2.1. The analysis of the management of public entities in the education system**

The management of the public entity, is subject to the internal audit and its analysis contributes to the acquaintance of the public entity environment, and by detecting dysfunction it ensures its performance. Its presentation provides detailed knowledge of the mechanisms of the public entity audit structure to ensure its evaluation based on system audit missions, performance audits and regulatory audit. The quality of the recommendations in the audit reports, ensures the performance of the public entity through scientific approach of the risk analysis (methods, techniques and new analysis tools).

The management system has a complex structure specific to the modern entities based on knowledge and information (Fatu T., A. Țugui, 2010; Drăgănescu M., 2007), and his design is conditioned on the size of the entity, the organizational structure, the human and financial resources , internal and external relations, organizational culture, and other items set depending on the specific of the entity, which would ensure the management principles and goals. Nicolescu O. and Verboncu I. (2008, p. 57) claim that the management activity is operational only through the participation of all collective entity.

The management system of the entity consists of components that meet the characteristics of organizational structure and the functions of the entity: organizational subsystem, information subsystem, decision subsystem, internal control subsystem. Its design is conditioned by the size of the public entity, organizational structure, financial and human resources, internal and external relations, organizational culture, and other elements that would ensure management principles. The performance of the audit is given by the ability of the structure to

synchronize the strategic goals resulting from the multiannual plan and derivatives, with the public entity's goals, by involving resources and risk management. The goals, function and organization, are components of the organizational subsystem. The audit performance is given by its ability to collect data and information and their treatment by using the information system, components of the informational subsystems. The current trend, is developing the information subsystem to the level of the posts and functions and its integration in the public entity. The decisional subsystem consists of goals, decision makers, and decisional risks and the control subsystem consists of objectives, resources, control environment and control evaluation.

The public entity management system is evaluated by the internal public audit, as its basic function.

## **2.2. The audit role and place of the internal public audit of the education system within the public entity management system**

As it results from the regulatory framework of the internal public audit (Law 672/2002, republished and amended), it is intended to provide the management for the proper management of the public entity resources through risk management, methodical and systematic evaluation of the management system of the entity for achieving its objectives. The ensuring of the fulfillment of the public entity is based on the evaluation of the management system, by the use of specific audit activity (being a methodical assessment) and scope of audit mission in the audit plan, based on systematic evaluation. The structure of the internal public audit participates to the accomplishment of the entities goals participating in the audit missions of assurance (regular and compliance audit) counseling/consulting missions and audit system missions.

**The assurance of the managed of the good risk management, based on the evaluation of the internal control**, efficient, effective and economic use of resources and ensuring the audit quality, it is necessary to **improve the audit** by redefining the

paradigms that govern the internal public audit: from auditor vs. audited, to auditor and the audited, resulting a system; **from the selection of the auditors, to professionalization through the national certification and professional training; from the acceptance of the risks, to risks control (management).**

Redefining the mentioned paradigms is only possible through an organizational culture geared towards awareness of the importance and role of the internal public audit, curing confidence in the internal public audit by professionalisation.

### **2.3. The need to improve the management system of the public education system entities, administrators of internal audit structures**

The need to improve the public entity management system aims to ensure the entity's performance and the audit performance by using appropriate methods: through standardization and procedure, risk management and analysis using statistical and mathematical methods and information system integration.

**The standardization and the procedure** are management elements that lead to the improvement of the internal public audit and the management system. Risk management is another element that leads to the audit performance, using mathematical and statistic calculation, leading to a high degree of accuracy and reliability, with the help of a informatical integrated system and defining the paradigm "**management system = integrated informatical system**".

### **2.4. The information harnessing information concerning the management system of the public education entities**

The acquaintanceship of the public entity organization system management in the area of research, by the internal audit, leads to the insurance of the performance

by carrying out the goals, raising insurance of the management and improving the risk management system. The harnessing of information concerning the management system leads to knowledge the risk management using the information subsystem, their analysis by applying scientific methods for the managerial activity combined with automation means of information treatment, effective in reducing the costs of gathering and treating data and information. The improving of the management system should be based on establishing the goals in relation to the environmental requirements, the internal organizational structures and ensuring its efficiency, effectiveness and economy. Another aspect of recovering of the management system is to establish a system of performance indicators in relation to goals of the public entity, object of the audit, through their continuous evaluation.

**The audit structure of the public entity provides ongoing evaluation of the management system and contributes to the performance of the entity. The role of the internal public audit is to evaluate the management of the risk, to permanently determine the degree of fulfillment of the goals and the their fulfillment method, that lead to the performance of the public entity. The components of the performance management in the internal public audit practice.**

#### **2.5. Suggestions and opinions on the diagnosis of the entities management system in the public education system.**

The management system is structured in the organizational subsystem, the decision subsystem, the information subsystem and the internal control subsystem. The functionality of the entity is the result of the management system activity that gives it an open and flexible character, adaptable to environmental changes (legislative changes, social changes - by varying the number of people employed, organizational changes, etc.).

**The audit performance is ensured by the performance of each management structure, including the performance of the internal audit.**

**Linking the goals system with the management system components represents another condition for the entity's performance, based on defining a strategy that objectively sets out the mission of the public entity.** According to the authors (Nicolescu O and I. Verboncu, 2008, p. 137), the entity's mission is to "foreshadowing on long term, the comprehensive enunciation of the fundamental goals and of the concept of business evolution and activities".

**The performance management of the public entity is achieved through a more flexible regulatory and standardization framework , creation of preconditions to attract investors by clarifying the regulatory framework, avoiding financial bottlenecks and promoting good management by appointing professionals to the entity management and prioritizing the funding investment and not by reducing budgetary allocations in this sector.**

### **Cap. III. STAGES OF THE PUBLIC INTERNAL AUDIT STATE EDUCATION IN ROMANIA**

#### **3.1. Planning the audit in the public education system in Romania**

Planning of the internal public audit is the activity on which there are engaged quantitative indicators such as human resources, time, financial resources and qualitative indicators such as competence, objectivity and independence.

According to the framework of normalization of the internal public audit (OMFP 5281/2003), planning is ensured by two directions: the annual and multi-annual planning of the public audit mission;

Prawitt D. F. (Prawitt D. F., 2003) believes that **the annual and multi-annual plan, is the strategic approach of the audit activity, specific to the management by achievement of the specific derived goals of the audit function** (at the level of the audit structure leader).

**The planning of the audit mission**, as considered by Hubbard (Hubbard L. D., 2000), related to the specific goals of the audit functions, **it faces the extent of**

**audit mission, the relationship with the management of the audited structure and the competences of the auditors required to ensure fulfillment of the goals of the audit mission.** By Ghita M. (Ghita M., 2009, p. 99) planning is an ongoing process that should ensure completion of the plan throughout the year. As a form of action of the governance system, the management system, to achieve the purpose of planning, it must ensure performance of the entity by establishing the correct goals, risks and resources allocated - in terms of quantity and consistency of the information channels to be established with the goals set and the communication- in terms of quality.

**In the private sector, internal audit planning is like planning internal public audit, compared to financial audit (external), and ensure the continuous activity within the entity, as subordinate management operation. Financial audit planning is achieved only when the audit mission is designed based on customer contracts (IFAC IAS 210 - Conditions of the audit missions) and no annual or multi-annual planning.**

Audit Planning (multi-annual, annual and audit mission plan) is based on risk identification and quantification and selecting risks with the greatest degree of action. By planning, risk analysis must ensure their low impact and low audit risk and a high degree of significance. Also, planning is based on the report of justification, document containing the risk analysis in relation to the established goals, allocated resources, related time and scope of audit, namely competence, independence and objectivity of the auditors, approved by the head of the public entity and always with the annual and multiannual audit plan.

### **3.2. Conducting the internal public audit in the education system**

The mission of the internal public audit is based on the audit planning and developing of the initiation procedures, risk analysis and raid spot, reporting and follow-up.

According to the framework of normalization, **the audit initiation** is based on the issuance of the **Order of service** and **Notification of the audited structure** and on the drafting of the **Declaration of independence** of the auditors.

**The order of service** is the document under which the audit mission is triggered. **It represents the link between the audit plan and the audit mission (resources and goals) and the legal framework for conducting the audit mission established between the auditor and the auditee structure.**

**The order of service is an extension of the audit plan of which are taken the goals, the period audited and the audit team.** The order of service assures the pass from the fundamental goals or resulted derivatives from specific planning of senior management (decision-making audit system, the audit system, the reliability of the accounting system, procurement etc.), to the specific targets belonging to the stations (staff training, personal coverage, the adequacy of activities, coverage procedures, control activities, etc.). It represents the legal bond that is established between the auditor and the auditee structure, on the conduct of the audit mission, the legal right to request supporting documents for drawing conclusions and making recommendations, elements that define the audit performance.

Under the framework of normalization (OMFP 38/2003 or OMECT 5281/2003) **the notification** is the document on which the structure of the audit communicates to the audited structure, the accomplishment of the audit mission and its type (regular, planned or outright), the aims and goals of the mission, the audited period, the period of the audit mission or raid spot. This document extends the legal bond of the service order, on which they are made available to the auditors, all the necessities (audited documents, office of material resources, computer, Internet network connection, etc.) needed to ensure the achievement of goals.

**The internal public audit charta** is the document that **defines the role and aim of the audit at the public entity level** (MPA 1000 - 1 Internal Audit Charta). **By the internal public audit charta there are established the goals of the audit function, the auditable area, it defines the regulatory and standardization framework of this function and ensures the independence, objectivity and**



**competence of the auditors.** In this document there are set out the types of audit missions (of assurance or advisory, of system, of performance), ensuring auditor independence. **As a requirement of ensuring audit quality and the entity's performance, the internal public audit Charta must be constantly updated in relation to changes in the internal or external environment of the public entity.** It provides the differentiation of audit from the control activities and contributes to improving the paradigm "auditor vs. audited = auditor, audited, a system" through understanding of the role of internal public audit by the auditee.

**The Declaration of Independence** is the document that underlies a qualitative audit by providing the audit structure's driver that auditors comply with this prerequisite. IIA Standards (MPA IIA 1100-1 Independence and objectivity), define the independence of auditors through the freely, objectively, impartially and without prejudice pursuit of activity, which is consistent with the Order 5281/2003.

**The collecting and processing of the information** is the procedure through which the auditors collect general information on the audited structure, consistent with mission's goals in order to ensure the knowledge of the internal and external environment of the audited structure, operation of the internal control system and identifying any sources of relevant information for tracking down the risks and to fulfill the mission's goals.

**The risk identification and analysis** is the procedure whereby risks are determined and analyzed starting from general to particular (Bota Avram C., 2009, p. 225), from the goals set out in the audit, the audited objects, to determining risks and the meaning threshold. In practice the level of significance is given by the medium risks and high risks, measured on the basis of their analysis based on the determination of the vulnerability, the impact and the internal control.

**The raid on the spot begins by organizing the opening meeting of the audit mission,** organized by auditors at the auditee structure, based on its notification and the service order. At the opening session there attend the auditors, the head of the audited structure and personnel involved or related to the goals audited. In the opening session, the auditors submit the audited goals, the role of audit in the frame of the entity's internal control system and presentation of the audit team. It is when

the auditors contribute to the audited understanding of the role and importance of the audit, based on their communication skills and confidence in internal audit, the audited structure orientation towards organizational culture based on performance. Strengthens paradigm "auditor-audited, a system."

**Intervention on site** is the auditors fieldwork and is carried out by applying techniques and audit tools on the audited goals, objects / activities, based on checklists, questionnaires internal control checklists, tests and documents.

The internal public audit framework of normalization (HG 1086/2014 and OMECTS 5281/2003) sets as audit techniques the following: **Checking, Comparison, Examination, Recalculation, Confirmation, Agreeing, Guarantee, Tracking, Physical Observation, Interview, Analysis.**

**The main internal audit tools used are: Questionnaire: acknowledgment questionnaire and internal control systems questionnaire; the Checklist questionnaire presentation panel of the audit circuit; Control tests; Finding documents; finding and reporting of irregularities form; Identification Sheet and analysis of the problem (FIAP);**

**The on site intervention closing meeting** is where auditors have completed the fieldwork and the stage where the recommendations are being communicated to the auditee structure.

### **3.3. Reporting the internal public audit in the education system**

Reporting the internal public audit in the education system is based on direct subordination of the public audit entity's structure directly to its director (Rector or school head inspector) but also the subordination to the Service of Internal Audit of the Ministry of Education and Research ( Order 5281/2003).

By reporting the public entities audit work, it provides at a national level the information of the service of the Internal Audit of the Ministry of Education and Research, about the way the resources are used at local level (universities and school inspectorates), provides the elaboration of the strategic policies concerning the internal public audit in the education system, by improving the standardization and regulation framework on internal public audit, good management of Community

funds and cooperates with the Court of Account to improve the risk control. Audit reporting aims to inform the management on how resources were managed through the functioning of the internal control, the organizational, decision-making and informational system.

**Note:** Reporting the audit work is an element that rests on the operability of the organizational, decision making, informational, internal control system and it underpins the decisions of the managers and people involved. Proper functioning of the channels, leads the management to a reliable decision, grounded on the audit recommendations, which are aimed at ensuring the performance of the audit structure and the audited structure.

Audit reporting is based on the audit plan, audits mission report and it leads to ensuring the added value of the audited structure, through the recommendations filed in the audit reports, following them and reporting the unimplemented ones.

### **3.4 Checking of the internal public audit in the education system**

The internal public audit is a complex activity and also a basic component of the entity's management system that provides evaluation of the management systems and the internal control systems, through a structured approach to learning (Law 672/2002). Starting from planning, the initiation, conducting and reporting of the mission, the internal public audit ensures the performance of the public entity through the recommendations made public by the auditors on the basis of respecting the objectivity, independence, integrity and competence of the auditors.

**In the private sector** the audit is reviewed by the regulatory authority through the Chamber of Financial Auditors of Romania (OU 75/1999). The purpose of the evaluation is to ensure the quality of the auditing and consulting services, through continuous training and to improve the normalization framework.

**In the public sector** the internal audit is evaluated by the action of the regulatory framework (Law 672/2002; OMFP 38/2003; OMECTS 5281/2003 and HG 1086/2012), by the hierarchically superior structure / UCAAPI and also by the local accounts rooms. The normalization framework of the internal public audit in the area

of research establishes two ways of checking: **internal checking, external verification.**

The internal verification of the audit is performed by the head of the public entity (where audit structure is framed by an auditor), or by the head of the audit structure (where audit structure is surrounded by at least two auditors) and has constant character (at every procedure of the audit's mission). It is concerned with respect for the independence, objectivity, competence and for the regulatory and normalization framework governing the internal public audit, but also the goals of the audit mission. External evaluation is performed every 5 years by the audit with normalization responsibilities concerning the public audit in the education system. This evaluation of compliance the framework to normalize concerning the audit's course. External evaluation is also carried out by the local Chambers of the Court of accounts, in each financial audit mission of budget execution and is concerned with respect for the code of ethics and public audited entity's internal control.

### **3.5. Opinions and suggestions on the methods, procedures and techniques used in the internal public audit**

Compared to the IIA standards (MPA 2330 A1 - 1 Control of audit files) that define the broadcast conditions of some information or documents from the audit file, the regulatory and standardization framework of the internal public audit does not define the regime of documents in the audit mission file that makes the object of some claims of persons or institutions authorized outside the entity such as Chambers of Accounts, judicial research institutions etc. and that underlay some conclusions or recommendations.

The Internal public audit performance is ensured by the action of the efficiency, effectiveness and economy indicators and the conformation to the code of professional ethics and regulatory and normalization framework. The internal audit

contributes to ensuring the performance of the entity, through evaluating the management system and the internal control.

## **Cap. IV. PERSPECTIVES CONCERNING THE PERFORMANCE OF THE INTERNAL PUBLIC AUDIT IN THE PUBLIC EDUCATION SYSTEM IN ROMANIA**

### **4.1. Elements of convergence between public internal audit and financial audit**

The performance of the public entities's internal audit, analyzed based on the performance standards of the INTOSAI auditing public entities is given by the efficiency and effectiveness of the public audit and represents the goals of the evaluation of the external public audit.

The financial audit may also be undertaken in the public sector. The Auditing Standards issued by IIA were taken in the public sector and were also based the financial audit. Although the two activities are totally different, there are situations in which the public auditors and internal auditors are put together to carry out audit missions of the public entities, as a result of a given situation, to objectively and independently evaluate the internal control. The international internal audit standards developed by the IIA, or international auditing standards against which financial auditors exercise their profession, enable achieving such missions of the public entity for the listed goals.

This collaboration is permitted by the international auditing standards<sup>17</sup>, which regulates the activities of each auditor to be coordinated and organized regular meetings to discuss issues of mutual interest, so that the mission's objectives do not

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<sup>17</sup> Standardul 2050 / MPA 2050 – 1 „Coordonarea” și în Standardul Internațional de audit 610 „Luarea în considerare a activității de audit intern”;

overlap. The performance of the auditors should cover the following key points on experience, professional knowledge, knowledge of the activity industry, independence, provision of specialized services, anticipating the needs of the entity and how to answer them, continuity of staff, maintaining quality working relationships, respect contractual commitments by the financial auditor and the added value of services rendered to the entity. The head of the internal public audit should consult financial auditors on matters concerning factors that influence the independence of the auditors, weaknesses in internal control, errors and irregularities, fraud or error, judgments of management and accounting estimates, adjustments important to the audit, the possibility of a disagreement with the management and deployment difficulties encountered during the audit.

**Another aspect of the coordination is** covering the areas of audit based on the audit plan, decisions following regular meetings on the program of work, mutual access to working files respecting the confidentiality of information, mutual understanding of the techniques, methods and terms .

In the course of the audit activity in the public sector, the head of the internal audit of public entities should encourage contact with the financial auditors on the basis of cooperation for the exchange of experience, better risk management and to address more effective techniques regarding the evaluation of the internal control entity. This cooperation should be based on mutual respect and trust and is taken by the Court of Accounts of Romania<sup>18</sup>, which establishes closer collaboration between local Chamber of Accounts as a supreme auditor with role in evaluation the internal public audit department and the internal public audit of public entities department.

In the audit procedures, **the capital procedures include tests on the operational details, capital analytical procedures and tests on details of account balances, using tests of details on analytical procedures and tests of details on account balances audit sampling**<sup>19</sup>.

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<sup>18</sup> Legea nr. 94 / 1992 modificată și actualizată în anul 2008 privind organizarea și funcționarea Curții de Conturi a României;

<sup>19</sup> M. Boulescu, Bârnea C., 2006 – Audit financiar, Ed. România de Măine, București, p. 182, 189;

**The formulation of the opinion and the audit report.** The auditor's opinion follows from the definition of financial audit, as a final audit mission carried out concerning the examination of financial statements of the entity and may be **unqualified opinion, qualified opinion, contrary opinion and a disclaimer of opinion**, as appropriate.

**The audit report** is the conclusion of the audit's commitment, and it shall also be established for shareholders, Board of Directors or any other person that requests it, under a commitment entered with a customer that is organized in this way.

#### **4.2. Prospects and trends of the internal public audit performance in the education system**

**The prospects of effectiveness and efficiency** of the internal audit are oriented towards the planning, evaluation and quality assurance activity, addressing the relationship between internal audit structure - management -audit committee and improving the evaluation of the risk management systems.

**Improving the entity relationship - users of audit reports will be provided and strengthen by the the internal audit structure and is the objective risk management in an effective manner by deepening the audit plans based on risk analysis and realities of the audit structure system - management - audit committee by providing a strong climate normalized by procedures, regulations, standards, namely the identification of risks and continuously strengthening the consultant roll provided by the audit structure.**

Awareness of the audit's importance by the management, ongoing monitoring it, time efficiency in the performance of the audit plan, risk analysis based on mathematical analytic methods using special software represents the current trends of the internal public audit.

**Trends of performance of the internal audit of public entities.** The performance of the internal audit of public entities is synonymous with creating a

surplus value brought to the public entities when the audit results are used and provide their feedback.

**Internal audit outsourcing** is a current trend of internal audit, both internally and externally, through which the entities give up the internal audit structures and resort to external audits on contracts for services. The causes are economic contractions of job reductions in the public sector and ensuring the audit function by the audit services agreement, or the need of professional assurance and independent management. A negative aspect of outsourcing the audit is the quality of audit reports, in which the practice proved that internal auditors do not faithfully reflect the situation in the concluded reports the heritage presented in the financial statements to not lose these contracts.

**The organizational culture** is a side of the management system as the whole of values, beliefs, aspirations, behaviors of each entity and it influences its functionality and performance<sup>20</sup>. It requires separation of management, execution, monitorization and evaluation of activities.

**The developing of the risk management** provides internal audit performance based on application of the risk evaluation techniques through software as a result of the large amount of information on the public entities activity in the area of research.

**Corporate governance** is defined according to the specific entity and it adjusts to its goals. This idea is taken from other authors<sup>21</sup>. The governance seeks to develop the performance of the public entity by empowering the management, the internal audit and the stakeholders.

**The establishment of the audit committees and the certification of the internal auditors of the public entities**, is a trend of the internal audit in Romania materialized in Law 672/2002 regarding the internal audit of public entities on the establishment of audit committees, but only for the public entities that carry an annual budget of 2 bln. lei. This limit, imposed by the regulatory audit, does not lead to improvement in the sense explained, this being possible only to the audit structures

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<sup>20</sup> O. Nicolescu, I. Verboncu – Management, Ed. Economică, ediția a III- a, București 1999, p. 402;

<sup>21</sup> Laurențiu Dobroțeanu, 2011 – Probleme de actualitate cu privire la măsurarea nivelului de guvernare corporativă în România, Audit financiar, nr. 1 / 2011, București;



organized in central public institutions, at subordinated public entities level, to the budget developed by those below this limit.

**The cooperation of the public entities in providing the internal audit function** is carried out under a cooperation agreement. In this respect the organizing entity will size the internal audit structure with qualified human resources according to the workload and the size of the associated risks. The audit structure employment is projected with 6 people and 10 associated local public entities respectively 2-3 audits / associated structure.

**The establishment of the audit committees** is mandatory to the entities which carry an annual budget of 2 billion. lei, as shown above and it consists of 5-9 people, a chairperson for a term of 3 years and a secretary.

**The certification** of the internal auditors is carried out by the regulatory authority of the internal audit of public entities <sup>22</sup> (UCAAPI), for the auditors who satisfy the training, demonstrated on the basis of study documents recognized in the internal audit, corporate governance, management, accounting, law , public finances, IT domain and providing over 5 years of experience in auditing.

Both the establishment of audit committees and auditors' certification are regulated and standardized elements, but public internal audit authority (UCAAPI), is not willing to implement this aspect.

### **4.3. Ways of quantifying the performance of the internal public audit**

The quantifying of the performance of the internal audit of public entities is based, in most cases, on quantitative analysis of indicators that provide added value creation within the public entity and completes the definition of internal audit performance. The evaluation of the audit and compliance of the normalization and regulatory framework, training and workload of auditors with other tasks, influence the performance of the audit by reducing the deployment time assigned to missions

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<sup>22</sup> \*\*\*HG 1259 / 2012 pentru aprobarea Normelor privind coordonarea și desfășurarea proceselor de atestare națională a auditorilor publici interni;

by increasing the risk of undetection of the risks, fraud, failure to ensure the annual audit plan. From the analysis of performance indicators of the internal public audit, follows a close connection, and an imbalance occurred (reduced financial resources, influences the provision of material resources, impairment competence by reducing funding for vocational training, etc.).

The financial and accounting activity and the internal control of public entities in the area of research is the most important goal of the audit, being considered the most important sources of information from which the audit can determine the size of quantitative indicators. To monitor the performance of public entities through internal audit, the damage can be grouped through quantitative indicators by the origin of the dysfunctions and their state (damage revealed by documents of finding, harm recovered being recovered or not recovered) as indicators regarding the origin of funding (prejudice to the local budget, state programs with external funding, social security, or harm to the budget public of the self financing entity) after recovery mode (prejudice recovered on the recommendations, damages recovered by the Investigation Service of fraud on FCRI, damages recovered by judgment, or damages not recovered).

Another way of measuring the performance of the internal public audit is an analysis of qualitative indicators defining the internal public audit performance (effectiveness, efficiency, economy and quality of the audit), using mathematical methods shown explicitly in Chapter 5 of this thesis.

#### **4.4. Opinions and suggestions on prospects for the internal public audit performance in the public education system in Romania**

Defining the concepts concerning the audit, internal control and corporate governance, are necessary for proper understanding of the function and role of the internal audit, the effective use of instruments and techniques for the control

evaluation used by the management of public entities in the area of research and establishing the responsibilities for management risks and linkages established between concerning the risk management that define the performance of the internal public audit.

The performance of the internal audit in the private sector is based not only on indicators of efficiency and effectiveness, but also on working with financial audits (external audit), regulated by CAFR. The regulatory framework for the private sector audit enables this collaboration through the International Standards on Auditing.<sup>23</sup>. The financial audit is conducted in the public sector where it is ordered by the courts or by the Chambers of Accounts for the recommendations not acquired by management, the internal audit outsourcing, or the audit of external financing programs specifically set by the Programme Guide developed by the public entity. The financial audit goals are established by the agreement completed in this respect to the goals of the internal audit, which covers all activities of the public entity.

The link between the internal audit of public entities and the financial audit is ensured by defining the audit standards<sup>24</sup>. Based on standards, the auditor shall ensure the evaluation of the internal control of the audited public entity, if the tests applied by the internal audit provides risk management within acceptable limits, so as to comply with an unqualified opinion on the financial audit. In this respect the internal audit structure is bound by the legal effect of ensuring proper management of public funds management, effective risk management and performance of the entity's goals<sup>25</sup>, to cooperate with the financial audit as an evaluator of internal control.

The trends of the internal public audit in the area of research are geared towards the implementation of the Balanced Scorecard, improving the relationship between the structure of audit-management-audit committee (functional only within private sector entities), extending the applicability of models of control CoCo and COS and

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<sup>23</sup> MPA 2050 – 1 Coordonarea și IAS 610 Luarea în considerare a activității de audit intern

<sup>24</sup> SAI 610 „Luarea în considerare a activității auditului intern”;

<sup>25</sup> Legea 672 / 2002 republicată privind auditul intern al entităților publice;

widening the use of special software to calculate risk based on statistical and mathematical applications.

## **Cap. V. EMPIRICAL RESEARCH ON THE LINK BETWEEN THE PERFORMANCE INDICATORS OF THE INTERNAL AUDIT OF THE EDUCATION SYSTEM**

### **5.1. Empirical scientific research organization**

#### **5.1.1. Notions, concepts and justification for the empirical scientific research**

To the surprise the performance of the internal public audit, we conducted this empirical research based on qualitative indicators, in relation to conceptual boundaries concerning efficiency, effectiveness, economy and quality of the internal audit, the place and role of the internal audit within the public entities in the area research, but also in their management system, presented in the previous chapters. We also analyzed the possibility of using Balanced scorecard as a method of current management review, the Dashboard, the financial and non-financial performance indicators used in education, **where we considered that the indicators of efficiency, effectiveness, economy and quality can be analyzed also by using mathematical modeling of qualitative analysis.** The quantitative approach is predictable (number of missions, the budget carried, the dysfunctions identified, the recommendations and the implemented ones etc.), but also explored in other works, facing the audit

performance addressed by qualitative aspect, able to capture the personal conduct of the auditors, their intentions, considered by us, defining for ensuring the audit performance based on respecting the independence and competence of the auditors in relation to the existing budget reductions.

**The research method used was Ordinated Logit Model<sup>26</sup> and was based on the analysis of qualitative variables whose answers were expressed by codes.<sup>27</sup>**

**The major advantage of the ordered logit model used, is the possibility of adapting it to the requirements of qualitative variables and the accuracy of the research results.**

**To analyze the performance of the internal public audit, based on material, financial and human resources were used questionnaires developed based on items gathered in scales, that were aiming at: professional training, objectivity and independence, motivation of the auditors, size of the audit area, risks management, the rate of the auditors' workload with other tasks, tracking of the recommendations and results. The analyzed indicators, define the effectiveness of the audit, as discussed in previous chapters, the effectiveness (goals of the audit, audit planning, communication and approval procedures, audit techniques and tools), counseling and economy, was analyzed based on specific indicators, based on the goals and the used resources (human, financial and material), in response to the items considered at efficiency indicator. The quality of the audit was analyzed on the basis of independence, competence and training of auditors and the analyzed results from this indicator analyzed to the efficiency indicator by evaluating the audit. Analysis of the internal audit performance, was measured based on the items aimed for improving the structures performance and recognition of the internal audit activity.**

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<sup>26</sup>Hosmer D.W., Lemeshow S., Sturdivant R.X., 2013 - Applied Logistic Regression, Ed. Wiley-Blackwell, p.528.

<sup>27</sup> Dragoş C., 2006 - Elemente de econometria variabilelor calitative cu aplicații în finanțe, editura Presa universitară clujeană, p. 63.

**The justification and way of conducting the research is achieved by defining the goal of this thesis and that is the analysis of the existing relationships between the indicators that define the performance of the internal audit,** as shown by the title of the paper, of which there are derived the following goals:

- determining the place and role of the audit structure within the public entity management system in the area of research, to improve risk analysis and achievement of the public entity's goal, based on empirical research conducted through descriptive statistical analysis<sup>28</sup> (Buiga A. et all, 2010, p. 13) of the results obtained;

- to demonstrate the existence of relations (Buiga A. et all, 2010, p. 182), between the performance indicators of the internal audit in the area of research, based on empirical research by static regression analysis<sup>29</sup> Dragoş C., 2006, pp: 78 – 80);

- to highlight the importance of using methods (R. S. Kaplan and D. P. Norton, 1996) and management techniques (O. Nicolescu, Verboncu I, 1999, 378), in the current work of the internal public audit in ensuring the performance of the public entity;

**The purpose of this exercise is to bring added knowledge within the internal public audit in the area of research and to develop it, based on the conclusions of this research,** determining vulnerabilities existing in the internal public audit in the area of research and providing the direction of the development; harmonization of methods, techniques and tools of modern management with the activity of the internal audit to ensure the performance of the public entity, namely harmonizing the development policies of the internal public audit in the area of research, based on empirical research results.

To analyze the set goals, there was constituted a sample consisting of **91 public entities** that organized internal audit structures, in the education system in Romania, representing 100%.

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<sup>28</sup> Buiga A., Dragoş C., Lazăr D., Mare C., Parpucea I., 2010, Statistică descriptivă, Editura Mediamira, Cluj Napoca;

<sup>29</sup> Dragoş C., 2006 – Elemente de econometria variabilelor calitative cu aplicații în finanțe, Editura Presa Universitară Clujeană, Cluj Napoca, 2006;

**In the pre-university public education system, the audit is organized into structures of internal audit at the county school inspectorates level (42 public entities organizing audit structures) and at the university level, internal public audit is organized by the universities level (49 public entities organizing internal audit). This approach was attended by public internal auditors and users of the audit reports, as defined above.**

They received the questionnaires intended to the internal public auditors within the 31 audit structures within the county school inspectorates and the 37 structures of internal public audit in the university education system respectively in the 4 audit structures within local government with responsibilities in the education system, 72 public entities representing 79.12%.

They received questionnaires intended to the managers (rector, vice rector, dean, prorector, head of department, head director, headinspector, deputy inspector, head accountant / head office, school inspectors human resources) within 39 school and county inspectorates and within the 36 universities, 75 public entities representing respectively 82.42%.

They received questionnaires intended to the financial administrators (financial officers and heritage administrators IT advisors, human resources, referrers and accounting) within the 40 county school inspectorates and the 35 universities, representing 75 public entities and 82, 42%.

The responses received in the area of research, 79.12% for public internal auditors and 82.42% for financial managers and administrators, out of 91 public entities, representing over 50% of the threshold for representation, enables us to formulate a general conclusion on the internal audit performance and trend indicators analyzed in a future period.

### **5.1.2. Substantiation of the goals and setting the working hypotheses**

The main objective of this exercise is **to demonstrate the existence of the relationship between performance indicators that define the performance of the**

**internal public audit of the education system and the possibility of ensuring its performance.**

**The approach based on the methodological factor** took into account the interception of audit's activity influence of organizing internal audit structures, by the regulatory and normalization framework.

**The approach based on the management and governance factor, took into account the interception of the audit's activity influence by their management and those charged with governance;**

**Addressing the light of socio-behavioral factor<sup>30</sup>** of the auditors took into account the interception of the audit's activity of public entities, organizers of internal audit by the individual personality of auditors to capture the degree of compliance with the independence, competence and integrity of auditors. **The reasearch approach through the socio-behavioral factor, has only been over endogenous variables (output), for whom the factor variables obtained significant values statistically speaking.**

**Addressing through the light of the users audit reports,** captures the availability of the financial managers and directors, to ensure the performance of the internal public audit by improving the performance of the public entities in the area of research through audit activity and justification of audit activity within the public entity concerning the legally makers and performers.

**Goal nr. 1. The place and role of the audit structure within the system management of the entity, for improving the performance of the audited public entity and structures based on descriptive analysis;**

**Goal nr. 2. The relations established between the performance indicators of the internal public audit based on regression modeling of the relationship between endogenous items and influence factors.**

**Goal nr. 3. Correlation analysis of auditors' personal characteristics and behavioral variables**

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<sup>30</sup> Rohrmann B., 2005, Risk Attitude Scales: Concepts, Questionnaires, Utilizations. Project Report University Melbourne, Australia, January;



**Goal nr. 4. Improving the performance of public entity through the internal audit activity and the justification of the internal audit's activity, from the point of view of the users of internal audit reports.**

**For each goal, hypotheses were formulated, by addressing the above factors, analyzed in a descriptive and regressional way.**

## **5.2. Descriptive analysis of items that formed the basis of the research**

According to the authors<sup>31</sup>, the descriptive statistical analysis aims at collecting, organizing and processing data resulting from the auditors respondents questioning in the research area on the average and standard deviation. **Analysis of results received from questionnaires sent to users of the audit reports**, was performed identically to those sent to auditors, except for the arithmetic mean calculation and standard deviation . I felt that the regression analysis addressed by calculating the standard error value, the regression coefficient, of the values of z and p-value, meet our analysis requirements.

The descriptive analysis of the endogenous variables based on the factorial variables that define the methodological factor,manegemant factor and governance factor, and socio-behavioral factors, have the same values and are identical for all variables result. Also in this study, socio-behavioral factor was analyzed only for three endogenous variables, the most representative, being applicable to all variables analyzed descriptively.

From the responses analyzed by descriptive statistical analysis, we can conclude that **the audit structures in the area of research are subordinate to the highest organizatorical level, to the rector or school head inspector , which contributes to ensuring the independence of the audit. There is a framework for normalization and regulation, which applies to all the audit structures analyzed**

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<sup>31</sup>Buiga A., Dragoş C., Lazăr D., Mare C. Parpucea I., 2010, Statistică descriptivă, Editura Mediamira, Cluj Napoca, p. 6;

**in the research area and there is management concern to ensure performance of the audit within these structures.**

Also, **the current economic environment in which the audit structures of the public entities that organize audit structures of education operate, manifested by reducing budgetary restructuring posts by legislation (Law 329/2009, Ordinance no. 77/2013 - later found unconstitutional, but that produced effects) contributed directly to braking the audit activity, with direct effects in ensuring performance. Another contributing cause to the distortion of the audit's activity is the management policies of the Ministry of Education who promoted until 2015, staff in leading positions in the secondary education system without managerial training (head inspectors and deputy inspectors, directors of the teacher houses appointed by the Ministry of National Education and Scientific Research and directors of schools - appointed by the school inspectorates through the head inspector and boards), through the institution of secondment in the interest of the education system and not through evaluated skills and skills-based exam. This practice, which has become customary in the secondary education system between 2009 - 2015, has a harmful effect on the performance of public entities under these circumstances. In the shown sense when posting are not concluded management contracts, legal documents showing the rights and obligations arising from such contracts, which the staff concerned is not directly responsible for the malfunctions / damages created.**

**Another contributing cause to the insufficient performance of audit is the passive position of the audit structure of the Ministry of National Education and Scientific Research, which is responsible for standardization in the audit of the education system. This results in two situations: Order of the Minister of Education, Minister of Interior and Minister of Finance no. 4576/2011 concerning the validation of financial flows to pay staff in the education system by involving internal auditors in the research area to endorse these flows<sup>32</sup>, which is a violation of the**

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<sup>32</sup> OMECTS 4576 / 2011 privind validarea fluxurilor financiare pentru plata cheltuielilor cu personalul din învățământ, art. 4 al. (3), care stipulează că «verificarea și validarea statelor de personal și a

**independence of the audit, because these operations subject to audit.** The second situation, **at the level of the Department of Internal Audit of the Ministry of Education and National Research has not developed a strategy of development of the audit in the area of its competence, including elements of professional training programs appropriate to ensure independence, the development of a a complex system of motivation and cultural organization, etc. by external grants.**

### **5.3. Regressional logistic modeling and reasoning the causal relationships between the endogenous items and influence factors**

Making a regression analysis on causal relationships between the resulted variables (endogenous) and factorial variables (influence), was based on the answers given by respondents in the research area, to the questions in the applied questionnaire. **By the questions addressed to the auditors and users of the audit reports, we tried to capture the performance obtained by the internal public auditors by pursuing competence (professional training, risk analysis, using new methods and techniques, making recommendations and their follow-up, quality of the audit reports drawn and ensuring its feedback, rules of practice), the independence and socio-professional conduct (compliance with the Code of professional ethics and ensure the independence and integrity), but also the structure of the audit by funding and equipping with material resources of the professional preparation of the auditors.**

As shown, the analysis of the results received from respondents in the research area, after questioning and to avoid bias, we used the software of static analysis STATA, by applying mathematical analysis on ordered logit model defined by the expressions below:

$$\text{Prob}(y_i = j | x, b, c) = F(c_{j+1} - x_i b) - F(c_j - x_i b) \quad (1);$$

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statelor de plată, se fac de către compartimentul salarizare sau audit din cadrul inspectoratului școlar județean/Inspectoratului Școlar al Municipiului București”.

$$\text{Prob}(y_i = j | x, b, c) = \frac{\exp(c_{j+1} - x_i b)}{1 + \exp(c_{j+1} - x_i b)} - \frac{\exp(c_j - x_i b)}{1 + \exp(c_j - x_i b)} \quad (2);$$

where,

$i = \overline{1, N}$  indexes respondents to the questionnaire;

$y_i$  = value of the endogenous variable (the item that we consider as a result);

$y_i = 1$  if the respondent answered “never”;

$y_i = 2$  if the respondent answered “sometimes”;

$y_i = 3$  if the respondent answered “often”;

$y_i = 4$  if the respondent answered “always”;

$x_i$  = the explicative variable vector (the items that we take as factors);

$b$  = the coefficients vector;

$c_j, j = \overline{1, 5}$  threshold value estimated through the model;

$c_1 = -\infty, c_j \leq c_{j+1}, c_5 = +\infty$ , conditions which will ensure that the sum of the probabilities for each respondent equals 1;

Prob = probability;

exp = exponential function  $e^x$ ;

These elements show the factorial variables influence on the endogenous variables, based on regression modeling conditions, **so that p-value indicates the existence of links statistically significant, set between the variables analyzed in (0 and 0.1]** and the values of z **shows the degree of influence of factorial variables on the endogenous variable that can take positive or negative values. the values of z is > 0, the influence is greater, and the values of positive or negative results, shows the influence of negative or positive as appropriate.**

From the logistic regression analysis of the results, **we can conclude that there is a link between the outcome variables and factorial variables** examined in

the regression analysis tables demonstrated by the value obtained p-value, p-value  $<0.1$  and values of  $z > 0$  and  $z < 0$ , logistic regression model laid down conditions.

The analysis was conducted by processing the factorial variables by the criteria established by the methodology factor, management and governance factor, and socio-behavioral factor. **From the results of factorial variables, it is observed that these influence the variables resulted but with different values, but statistically significant** at a significance level of 1%, 5% and 10%, which differs from the variable result to the variable results analyzed.

From the regression logistic analysis, as mentioned above **were obtained values for p-value  $<0.1$ , and the values of  $z > 0$  and  $z < 0$ , which concluded that the factorial variables analyzed according to the tables of regression analysis, the performance of the audit and the public entities in the area of research can be ensured through factorial variables analyzed for values of  $z > 0$ , or may decrease ensuring the performance of the audited structure, audit and public entity, for values of  $z < 0$ .** From this conclusion we follow that **it is proposed to ensure performance through factorial variables, resulted under the activity of the factor variables.**

#### **5.4. Correlation analysis of auditors' personal characteristics and behavioral variables, performance improvement and justification of the audit activity**

In the correlation analysis of the results of the empirical research we introduced Spearman's correlation coefficient to track the existence of links between the variables analyzed. Because in all the correlations studied, at least one variable is ordinal. Therefore, the use of the correlation coefficient may be inappropriate, as mentioned above, particularly for predicting the likelihood of rejecting the null hypothesis (p-value). Conditions laid down by the method used (Spearman's coefficient), we have:

- $z < 0,3$  = weak link;
- $0,3 < z < 0,7$  = medium link;
- $z > 0,7$  = strong link.

Also, we believe that there is relationship between variables, if p-value  $< 0.01$  or  $0.00$ . From the analysis emerges the situation that there there are relations between variables, but not strong, because of the large number of factors that influence the endogenous variable and their influence diminishes in relation to their number. We believe that there is relationship if p-value  $< 0.01$  or  $0.05$ , and the tables contain only correlations that have been demonstrated.

According to the analysis, resource managers believe that reducing audit structure is a brake performance in providing public entity. **Improving the performance of the public entity can be achieved by linking its goals with the audit goals, communication, monitoring implementation of the recommendations and report the unimplemented recommendations, the appropriate audit methods, techniques and tools and respecting the independence, integrity and competence of auditors and the regulatory and normalization framework.**

### **5.5. Preliminary conclusions drawn from research, limits and perspectives on the research on the links between the performance indicators of the internal audit in the education system**

The empirical research was conducted by asking questions of a qualitative nature, laid down by the questionnaires that were sent to the area of research. By the questions, we tried to capture "a picture" of the place and role of the internal audit in the education system in Romania and the links between indicators that define

performance of the audit of the education system, the behavior of the auditors in regard to the performance of the audit and the link between the personal features of the auditors and the behavioral variables analyzed. The analysis has not followed up on time performance of the internal audit in the area of research, but pursued to surprise these indicators right now and based on the results, to detect the insurance needs of this indicator and set the stage for providing the feedback of these public entities, through the audit function.

**According to empirical research conducted through regression logistic analysis, the audit function within the analyzed public entities justify their work by raising the level of trust of the users of audit reports and financial statements, ensuring the management of public entity of efficient, effective and economic use of resources. Also, the higher level of trust in public internal auditors contributes to their skills certification, provided by continuing professional training as a requirement for obtaining and maintaining their registration certificate.** Based on these considerations, on the evolution of the internal audit performance analyzed based on qualitative aspects, we believe that **it is not necessary to show the evolution of performance in terms of quantity as the development direction of the audit is given in the future of the regulatory and normalizational framework. The ordonated logit model** (Hosmer DW et al, 2013 p. 528), an instrument which was the basis of the analysis of the determined variables established through questionnaires is used more in marketing analysis and less used to issue the audit, **but we believe that the its advantages are not known for its application in the field of audit, or investigation in the field, which concerned not only quantitative aspects, which were processed using the tools provided by statistics (Kolmogorov-Smirnoff, Spearman, Kendall etc.).**

Through the assumptions made, we can conclude that the structure of audit independence **is ensured by the management of public entities and there is management concern in motivating the auditors. The internal audit structures in the research area, are subordinate to the heighest organizational level respectively rector, head inspector school rector or, where appropriate,** as results of the regulatory framework. The subordination of the audit in the area of research at

the highest level, is the independence of the organization, **but in terms of the scientific research on this subordination shows that the management interfered in the work of the audit structure, following the restructuring that occurred in the previous period . These limitations lead to a dual, fictional behavior, avoiding taking blame and not engaging or treating superficially the audit act and forward to the personal advantages by the auditors. By the values obtained (p-value and z), is likely to ensure the performance of the audit and public entities to the audit audit structure and analyzed indicators (depending on the value of z positive or negative), contribute or diminish to ensuring performance. We can say that there are links between thw performance indicators and the audit structures can ensure their performance and also the performance of the public entity.**

**From the perspective of the audit reports users (staff categories representing financial managers and administrators) by the audit activity there is ensured the improving of the performance of the public entities in the area of research and also they consider that internal audit justifies its activity and contributes to the goals of the public entity.**

## **Cap. VI. OVERALL FINDINGS AND PERSPECTIVES OF THE RESEARCH ON THE PERFORMANCE OF THE INTERNAL PUBLIC AUDIT**



**The main conclusions** drawn from this scientific approach, supporting the idea that, for managing risks and maintaining them at an acceptable level, the level of public entities in the area of research is necessary the capacity development of the audit structure to ensure the management of efficiency, effectiveness, economy use of resources and goals achievement in the current economic and social conditions. So it is essential to understand the strengths and knowledge of the audit activity and its performance. We believe that the results of this scientific research will help to:

- strengthening the function that ensures proper management of the public internal audit in the research area, to the efficient, effective and economic resources management of public entities and their contribution to the achievement of the goals;
- determining the direction of development of the internal audit by identifying vulnerabilities and causes that distort the audit activity in the research area;
- developing a strategy for strengthening the functions and developing the internal public audit in the education system;
- adds knowledge in scientific research of the internal public audit's performance in the education system and it can be a starting point for future research in this area.

Also, the control system of the public entity, the financial audit and corporate governance demonstrates that the internal public audit is closely linked to these activities and increase trust in the public entity based on an ethical approach, social responsibility, good practices in education and evaluation of the management and control by the auditors.

The performance of the internal audit is given by synchronizing its goals with the public entity's goals established by the management system (organizational, informational, decisional, internal control), based on planning and involvement of its resources for the efficient and effective risk management and reduce the degree of vulnerability of the public entity. From the analysis of the management system, **we believe that internal audit is a public service and not a business, something also supported by other authors** (Dumbravă P., 2007). Audit planning is the link

between goals, resources and performance in relation to the audit area and the significant risks. The most important elements of planning the audit are the risk analysis methods (mathematical, statistical) and the analysis tools. Because within the public entities in the area of research, internal audit can be outsourced, the recommendations set by decisions of the Boards of Auditors and unimplemented, undertaking of external financing, imposition by the courts of professional opinions on the financial aspects concerning the public entity, these issues can be solved with the help of the financial audit. Risk analysis, sampling and tests covered reasoning of the auditors in relation to the goals are elements that can be used both in the practice of financial audit and internal audit practice.

**The performance of internal public audit is an institution that is given by the complexity and area of competence, importance and area of the audit,** as the activity that provides users of audit reports within society, public institutions etc., with good resource management. Starting from the definition of internal public audit, to ensure effective management of efficient, effective and economic resources, performance is its ability to provide this function.

If from the point of view of the descriptive analysis in the empirical research, **the internal audit performance is impaired by the current economic constraints, the mathematical modeling used shows that there is a link between the indicators that define it.** The research results show that **there is a likelihood of ensuring the performance of the audit to attain its goals and feedback within public entities despite the general economic situation by preserving the independence and integrity, the experience, ensuring competence through their own efforts or by funding from external funds, strengthen confidence in users of audit reports by strengthening audit and audit functions in the area of research, by developing a strategy** to the audit Service of the Ministry of National Education and Scientific research level.

**The research limits** are given by the breadth of coverage that focuses on the internal audit performance issues in the education system, the methodology of analysis addressed, the latter being able to generate a degree of subjectivity. Also, addressing by unitary and not separate research of the performance of internal audit,

organized in higher education and the internal public audit organized within the framework of the pre-term transmission of the questionnaires and the huge receive responses, the reluctance of the respondents to questions concerning the socio - behavioral factor of the auditors and by using the qualitative research approach, we believe that is the limitations of this research. Also, the use of mathematical modeling as a method of analysis of the variables, less applied in scientific research in the field of internal public audit performance. Designing this mathematical model was done to compliance with a reasonable degree of assurance of results to reality, reducing the complexity and the area of analysis, the number of answers and the number of variables analyzed by variable results, also contributed to increase the period of development of this approach.

Another element that we consider in this respect is the fluctuation of the regulatory and standardization framework that the changes concerning the internal public audit practice these could not be corrected in the questionnaires sent, although these changes are not relevant to our approach.

**The prospects of the research** are geared towards making a step to address the issue of the internal public audit performance also in terms of quantitative analysis. Also, the approach of a more complex research concerning the public audit of the educational system, the development of programs for the development of the internal public audit in the area of research financed by external funds, in which the main goal is the need to improve the human resources, are some perspectives on scientific research in the field of internal audit performance. Another perspective is to analyze the risks based on mathematical analysis methods by applying mathematical modeling by setting the timing of their life.

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