

# METHODS OF MEASURING THE PERFORMANCE OF INTERNAL AUDIT

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## Abstract:

*This paper is focused over the performance of internal audit, more exactly over the methods of measuring the effectiveness of internal audit activity. The global economic crisis put in the light many difficult economic areas that need to be reviewed and their performance is discussed. One of these problematic areas is represented by the performance of internal audit and the right methods to measure it. Based over an analysis of the most recently internal audit practices at leading international companies, our main objective was to develop a synthesis of the most relevant methods that could be used to measure the effectiveness of internal audit, from an international point of view, and also to identify the key trends that will influence the internal audit activity from the performance's point of view.*

**Key words:** internal audit, performance of internal audit, methods of measuring, value added, internal audit practices.

**JEL Classification:** M42

## INTRODUCTION

The current economic crisis generates a major pressure over several areas, and one of these is represented by internal audit. The activity of internal audit it is now more than ever called to prove its usefulness, or in other words, to eliminate the unpleasant label of „resources consumer” and to become a „provider of value added”. In this context, the problem of measuring and evaluating the performance of internal audit is more and more in the attention of both auditors and those who are following and using the results of internal audit. The International Standards for the Professional Practice of Internal Audit states that “*The chief audit executive must develop and maintain a quality assurance and improvement program that covers all aspects of the internal audit activity*” (1300- *Quality Assurance and Improvement Program*) (IIA, 2008). According to the interpretation offered by the new version of internal audit standards issued by The Institute of Internal Auditors in 2008 and applicable with 2009 “*this program also assesses the efficiency and effectiveness of the internal audit activity and identifies opportunities for improvement*”.

Different studies realised recently (Deloitte, 2010; PriceWaterhouseCoopers, 2010; Pop & Bo a-Avram, 2009) emphasized the need to rethink the strategy of the internal audit activity, maybe even to rethink a new model of internal audit. One of key trends identified more recently at international level showed that now we are confronted with the growing of the interest for the measuring and evaluating of the performance of internal audit, that will leading to more attention in choosing those methods to detect the real level of performance achieved by internal audit, from both quantitatively and qualitatively. It becomes necessary to organise periodically, under the audit committee's supervision, the external evaluation of the level of performance of internal audit activity determined by the internal audit itself.

The next perspectives of internal audit function show an intense concern for the value added provided by internal auditors, and also for the methods through the internal audit's effectiveness could be reliably measured and evaluated. The problematic of measuring the effectiveness of internal audit function receive increasingly significant valences so that internal audit has to face a significant challenge consisting in finding the best and relevant metrics for measuring the efficiency and performance of internal audit and quantifying the progress made in achieving its goals and objectives (Prawitt, 2003). The difficult economic context requires accurate answers at questions

like: *Which methods of measuring the of internal audit's performance are more relevant and more effective?*

## METHODOLOGY OF SCIENTIFIC RESEARCH

The scientific research methodology of this paper is based on fundamental type of research, trying to make a review of main approaches, ideas and opinions of high rated specialists regarding the internal audit's performance trying to identify the next key trends of the researched area. Combined with the method of critical analysis of recent publications and various articles and studies in international literature, we used the analysis of case studies that described internal audit practices used by the leading international companies more recently. The main objective of this study is to determine the main methods that could be used for the most relevant evaluation of internal audit's performance. So, the construction of the research methodology was focused over the identification of the potential answers at the question:

1. *Which methods are more relevant for the measuring of internal audit's performance?*
2. *Which are the main characteristics of internal audit practices used by leading international companies for measuring and evaluating the effectiveness?*

In the process of finding solutions at the problems discussed we investigated high rated articles and papers, reports and recommendations, combining the documentation process with the observation process materialized in its two forms: participative and non-participative. Finally, we tried to synthesize the most relevant methods and techniques that could be used as guidelines for the assessment of internal audit's effectiveness.

## LITERATURE REVIEW IN THE RESEARCH AREA

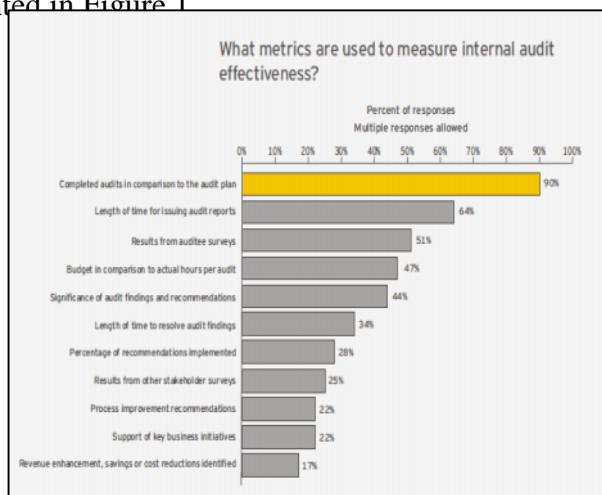
Ernst&Young, one of Big Four Audit firms, conducted a few relevant studies regarding the international audit practices, the results being incorporated into so called studies "Global Internal Audit Survey". Next, we are going to refer at the more recently studies realized in 2007 and 2008. The report "*Global Internal Audit Survey 2007*" (Ernst&Young, 2007) highlights the findings of survey made through internal audit executives representing 138 predominately public companies representing membership in the Global Business Week 1000, and the Standard&Poor's Global 1200 from 24 countries, most of the participants' companies being large multinational functions with revenues over US\$ 4 billion. The results of this survey show that half of the respondents (50%) do not track the value their internal audit function provide to the organization, while only 13% measure value based upon actual cost savings. The importance of value tracking is given by the fact that reinforces internal audit's relevance as well as help to justify the investment in necessary resources for internal audit. Regarding the methods used for the evaluating of internal audit's performance, the survey (Ernst&Young, 2007) showed that:

- the most used methods for measuring internal audit's effectiveness are represented by:
  - *Completed internal audits in comparison to the internal audit plan* (89%); and
  - *The length of time for issuing internal audit reports* (72%);
  - only 32% of respondents use *length of time for resolve internal audit findings as a key metric*, and
  - 23% use *support of key business initiatives*.

The survey realized by Ernst&Young next year (Ernst&Young, 2008) emphasized that beside the methods (identified in 2007 survey) used in measuring internal audit's performance: completed internal audits in comparison to the internal audit plan and the length of time for issuing internal audit reports, there is one more frequently used namely *the results from shareholders surveys*. The survey (Ernst&Young, 2008) identified that:

- only 34% of respondents use length of time to resolve internal audit findings and
- only 22% use support of key business initiatives as a key metric.

According to Ernst&Young Survey from 2008, the most used methods to measure internal audit effectiveness are presented in Figure 1



**Figure 1. Metrics used in measuring internal audit effectiveness**

Source: Ernst&Young, 2008

Starting with 1993, The IIA's Global Auditing Information Network (GAIN) has realized different benchmarking information over different topics of internal audit. Many GAIN participants were interested to identify the most relevant methods for evaluating the internal auditing department effectiveness. Ziegenfuss (2000) presents the results of a study involving CAEs participating in the GAIN project, and there were identified five top performance measures like:

1. *Staff experience;*
2. *Auditing viewed by the audit committee;*
3. *Management expectations of internal auditing;*
4. *Percentage of audit recommendations implemented; and*
5. *Auditor education levels.*

According to Ziegenfuss (2000), we present in the Table no.1 and Table no.2 the top twenty of performance measures for internal audit activity as follows:

**Table 1. TOP 20 Gain Performance Measures as ranked by CAEs**

Overall Ranking	Performance measures	Audit process
1	Staff experience	Input
2	Auditing viewed by the audit committee	Audit environment
3	Management expectations of internal auditing	Audit environment
4	Percent of audit recommendations implemented	Output
5	Auditor education levels	Input
6	Audited satisfaction survey	Process
7	Importance of audit issue	Output
8	Training hours per internal auditor	Output
9	Audit committee satisfaction survey results	Audit environment
10	CAE reporting relationships--functional	Audit environment
11	Audit committee risk concerns	Audit environment
12	Number of complaints about audit department	Process
13	Role of internal auditing viewed by the audited	Audit environment
14	Number of management requests	Audit environment

15	Percent of certified staff	Input
16	Number of process improvements	Output
17	Quality assurance techniques developed	Audit environment
18	CAE meets privately with audit committee	Audit environment
19	IT integrated auditing	Audit environment
20	Average years of audit experience	Input

Source: Ziegenfuss, (2000)

**Table 2. TOP 20 Gain Performance Areas as ranked by CAEs**

Overall Ranking	Performance areas
1	Auditor quality
2	Standing with audit committee
3	Management satisfaction
4	Quality of findings
5	Auditor quality
6	Audited relations
7	Quality of findings
8	Audit resources
9	Standing with audit committee
10	Organizational status
11	Audit committee effectiveness
12	Audited relations
13	Management satisfaction
14	Management satisfaction
15	Auditor quality
16	Quantity of findings
17	Quality assurance
18	Audit committee effectiveness
19	Audit mix
20	Auditor quality

Source: Ziegenfuss, (2000)

When CAEs participating at GAIN survey were asked to identify the five most vital and important measures for evaluating the internal audit performance, their responses were quite interesting. We present them in the Table 3.

**Table 3. Most critical performance measures in the vision of the CAEs**

Overall Ranking	Performance measures	Audit process
1	Audited satisfaction survey results	Process
2	Percent of audit recommendations implemented	Output
3	Number of management requests	Audit environment
4	Audit committee satisfaction survey results	Audit environment
5	Importance of audit issue	Output
6	Management expectation of internal auditing	Audit environment
7	Staff experience	Input
8	Completed vs. planned audits	Process
9	Number of process improvements	Output
10	Training hours per internal auditor	Input
11	Role of internal auditing viewed by the audit committee	Audit environment
12	Number of major audit findings recommendations	Output

13	Amount of audit savings	Output
14	CAE reporting relationship--functional	Audit environment
15	Percent of certified staff	Input
16	Number of complaints about audit	Process
17	Quality assurance techniques developed	Audit environment
18	Audit committee risky concerns	Audit environment
19	Number of repeat findings	Output
20	Days from end of field work to report issuance	Output

Source: Ziegenfuss, (2000)

Frigo M.L. had a significant contribution at the researching of the internal audit's performance. He propose the using of **Balanced Scorecard instrument** in the evaluating of the performances of an internal audit department through his paper totally dedicated to this problematic - „*A Balance Scorecard Framework for Internal Auditing Departments (Paperback)*” – a paper realized in cooperation with *The Institute of Internal Auditors Research Foundation*. The author of this study wanted to develop a model of Balanced Scorecard for internal audit departments, following to emphasize the ways that internal audit departments could improve their activities regarding the measuring of internal audit performances. The Balanced Scorecard model presented by Frigo M.L.(2002) is approached from few key elements perspectives like:

- (1) Internal audit customers (audit committee, management and the audited);
- (2) Internal audit process;
- (3) Innovations and capabilities.

For the construction of this model, Frigo starts from the premise that there are some key concepts of this model that could be applied for the internal audit departments like:

- *measuring the performance from customer's point of view;*
- *determination of some certain indicators for the quantifying of the internal audit performance;*
- *the connection between internal audit and customer' expectation;*
- *focusing on general strategies of the department;*
- *innovation and capabilities of internal audit.*

Arena & Azzone (2009) realized a study through they followed to understand the organizational drivers of internal audit effectiveness, taking into account the recent changes of the internal auditing and its central role in corporate governance. The data used for this study were collected through a questionnaire, which was sent to 364 Italian companies, and a response rate of 47% was obtained. On the basis of data from 153 Italian companies, Arena & Azzone (2009) survey emphasizes that the effectiveness of internal auditing is influenced by factors like:

- the characteristics of the internal audit team,
- the audit processes and activities, and
- the organizational links.

It was observed an increasing of internal audit effectiveness, particularly, when:

- ✓ the ratio between the number of internal auditors and employees grows,
- ✓ the Chief Audit Executive is affiliated to the Institute of Internal Auditors,
- ✓ the company adopts control risk self-assessment techniques, and
- ✓ the audit committee is involved in the activities of the internal auditors.

## **INTERNAL AUDIT PRACTICES FOR EVALUATING THE PERFORMANCE USED BY LEADING INTERNATIONAL COMPANIES**

The study realized by PROTIVITI (one of the largest providers of internal audit services and consultancy from United States and Canada) in cooperation with The Institute of Internal Auditors

(Protivi Knowledgeleader, 2010), have been continued the series of studies realized by Protiviti starting with 2005, each of these studies analyzing the internal audit practices at leading international companies from different point of views. The last volume (VI) "Internal Auditing Around the World" tries to establish a summary of the profiles of technology enabled internal audit functions at leading international companies.

Due to the value provided by technology-based audit and data analysis techniques, internal audit has now the capability to examine vast amounts of data, identify patterns and potential risks, in this way internal audit being able to provide better recommendations to management and to the board, which would determine a greater effectiveness and performance for internal audit activity.

The study (Protivi Knowledgeleader, 2010) presents data for nine international leading companies. Based on the data provided by this study, next we try to outline a synthesis of elements of internal audit practices used by these companies in the measuring of internal auditing performance.

### **1. ACCENTURE:**

- **Industry:** Professional Services
- **Number of employees:** 181.000
- **Annual Revenues:** US \$ 21.6 Billion
- **Auditors in IA Function:** 45
- **Number of Years IA Function has been place:** 9
- **IA Director/CAE reports to** – Chief Risk Officer (CRO).
- **Metrics used for measuring of the internal audit performance:**
  - ❖ Effectiveness of global risk coverage
  - ❖ Scope and dept of coverage
  - ❖ Quality of internal audit reporting to management and the audit committee
  - ❖ Quality of internal audit staff (leadership, development and qualifications)
  - ❖ Efficiency of the overall internal audit function
  - ❖ Efficacy in covering existing and emerging risks and new businesses
  - ❖ Using of balanced scorecard approach to track key departmental metrics.

### **2. COMMONWEALTH BANK:**

- **Industry:** Financial Services
- **Number of employees:** 44.218
- **Annual Revenues:** AUS \$ 34.9 Billion
- **Auditors in IA Function:** 90
- **Number of Years IA Function has been place:** 21
- **IA Director/CAE reports to** – Chief Financial Officer (CFO).
- **Metrics used for measuring of the internal audit performance:**
  - ❖ Audit client feedback
  - ❖ Internal post-audit review

### **3. DENTSPLY INTERNATIONAL:**

- **Industry:** Medical Instruments & Supplies
- **Number of employees:** 9.400
- **Annual Revenues:** US \$ 2.2 Billion
- **Auditors in IA Function:** 5
- **Number of Years IA Function has been place:** 15
- **IA Director/CAE reports to** – Chief Risk Officer (CRO) and Chair of Audit & Finance Committee.

➤ ***Metrics used for measuring of the internal audit performance:***

- ❖ The performance of audits according to the annual plan
- ❖ The issuance of audit reports within 10 days from the last day of fieldwork
- ❖ Minimal audit director/manager review notes
- ❖ Minimal audit plan risk assessment changes
- ❖ Value-added recommendations written into the audit report
- ❖ Risk-based assessment with priority ranking given to the audit plan.

#### **4. DEUTSCHE BANK :**

➤ ***Industry:*** Financial services

➤ ***Number of employees:*** 77.053

➤ ***Annual Revenues:*** US \$ 40 Billion

➤ ***Auditors in IA Function:*** 400

➤ ***Number of Years IA Function has been place:*** 50

➤ ***IA Director/CAE reports to*** –Management board/Group CFO.

➤ ***Metrics used for measuring of the internal audit performance:***

- ❖ Balanced scorecard approach aligned to Deutsche Bank's strategic objectives. The four performance indicator categories are people, processes, financials and service.
- ❖ Report to management board and audit committee with regard to audit plan progress and key control deficiencies.

#### **5. PHILIPS:**

➤ ***Industry:*** Consumer electronics

➤ ***Number of employees:*** 116.000

➤ ***Annual Revenues:*** €23 Billion

➤ ***Auditors in IA Function:*** 75

➤ ***Number of Years IA Function has been place:*** 70

➤ ***IA Director/CAE reports to*** – Chief Executive Officer (CEO) & President.

➤ ***Metrics used for measuring of the internal audit performance:***

- ❖ The compliance with the audit plan that contains a number of issues
- ❖ The measuring of audit scope around financial reviews, business audits and strategic risk audits and the connection to an assessment of overall risks in Philips
- ❖ The measuring of performance on a continuous basis – reporting to the company's supervisory board audit committee on its progress.

#### **6. SAP:**

➤ ***Industry:*** Computer Software

➤ ***Number of employees:*** 47.578

➤ ***Annual Revenues:*** €10.7 Billion

➤ ***Auditors in IA Function:*** 34

➤ ***Number of Years IA Function has been place:*** 14

➤ ***IA Director/CAE reports to*** – Chief Executive Officer (CEO).

➤ ***Metrics used for measuring of the internal audit performance:***

- ❖ Analysis of audit cost including costs per engagement
- ❖ Display audit results from geographical regions
- ❖ Audit survey results
- ❖ Developing conceptual approaches such as continuous auditing.

**7. SHELL:**

- **Industry:** Energy
- **Number of employees:** 101.000
- **Annual Revenues:** US \$ 278 Billion
- **Auditors in IA Function:** 250
- **Number of Years IA Function has been place:** 50
- **IA Director/CAE reports to** – Chair of Audit Committee.
- **Metrics used for measuring of the internal audit performance:**
  - ❖ The audit scope
  - ❖ The progress in action implementation of audit recommendation.

**8. SPB:**

- **Industry:** Financial Services
- **Number of employees:** 822
- **Annual Revenues:** €17.7 Billion
- **Auditors in IA Function:** 3
- **Number of Years IA Function has been place:** 2
- **IA Director/CAE reports to** – Chief Executive Officer.
- **Metrics used for measuring of the internal audit performance:**
  - ❖ Evaluation of board's satisfaction with the internal audit team work and findings
  - ❖ Measuring the satisfaction of audited after each audit engagement
  - ❖ Examination of financial benefits that company achieves through the implementation of audit recommendation
  - ❖ A global analysis of what audit brought to the organization in terms of cost reduction and risk management improvement

**9. TALECRIS BIOTHERAPEUTICS:**

- **Industry:** Pharmaceuticals
- **Number of employees:** 4.800
- **Annual Revenues:** US \$ 1.5 Billion
- **Auditors in IA Function:** 3
- **Number of Years IA Function has been place:** 3
- **IA Director/CAE reports to** – Chair of Audit Committee dotted line report to CFO.
- **Metrics used for measuring of the internal audit performance:**
  - ❖ Traditional methods like making sure that internal audit is on target with budgets, productivity and quality
  - ❖ The evaluation of accomplishing of audit plan from an investigation standpoint and if they are resolving issues as they emerge
  - ❖ The acceptance of internal audit recommendations by management
  - ❖ The evaluating of organizational tone of accepting internal controls.

It can be observed a strong preoccupation for internal audit directors with regard to effectiveness and performance of internal auditing. The technology provides a great added value for a lot of activities including internal auditing. Thanks to technology, now, internal auditors have the possibility to assess the entirety of their transactions, being able to develop data analysis more accurate and complete. As the director of internal audit from Shell company remarks: "*Internal auditors have strengthened the assurance they provide*" (Protivi Knowledgeleader, 2010).

On the other side, due to this great advantage represented by technology, the expectances from internal auditors are now more than ever, and from here arises the intense preoccupation for



internal auditors to measure their effectiveness and to prove the value added provided to their companies.

A synthesis of the main metrics used by international leading companies for measuring and evaluating the performance of internal audit is given as follows:

- Using of Balanced Scorecard instrument
- Using qualitative methods by realizing some satisfaction studies for the clients of internal audit, one main objective being the identifying of the potential causes for the unhappiness of the client;
- implementation of some assurance quality programs and the accountability to realize annual assessments of internal audit quality;
- other instruments used for the measuring of the internal audit's effectiveness are: informal reports for the management, different monitoring systems of a necessary time for fulfilling the audit missions and the quality of internal audit reports.

## CONCLUSIONS

Taking into account the difficult economic conditions that we are passing through, it's become obviously that one of the main challenge that will influence the next perspectives of internal audit development will be determined by the necessity for internal audit to prove the added value provided and so, to find the most relevant methods and techniques to evaluate internal auditing performance.

With no doubt, we can conclude that both stakeholders and internal auditors themselves recognize the critical focus of management under internal audit is analyzed, which require the fundamental rethinking of the internal audit strategy. It is necessary for internal audit profession to achieve a significant step toward some radical changes with regard to how internal audit works and the value added by its functioning to meet successfully the requirements of Executive Directors, members of audit committees, and even internal auditors. In our opinion it's quite important in the process of metamorphosis of internal audit to give the internal auditors the opportunity to develop the range of skills necessary in carrying out tasks, focusing more insistently on the ability to identify potential risks and strategies to manage and mitigate these risks.

Analyzing internal audit practices there could be identified many methods and instruments that are considered as being quite relevant for measuring and evaluation of internal audit efficiency. In our opinion, the choice of different metrics for evaluating the performance depends on the settlement of the main objective of trying to obtain the best reflection of internal audit's relevancy and efficiency, offering arguments for investment for a good developing of internal audit department.

In our opinion there are few general rules that have to be respected by internal auditors in order to assure their contribution at the progress of the company:

- ✓ the internal audit strategy has to be focused over the concept of value added for the work environment
- ✓ Internal auditors must be aware over their responsibility to demonstrate to the management and the audit committee how internal audit works;
- ✓ Internal auditors have to be also aware of their responsibility to find the most relevant methods and techniques in evaluating their performance
- ✓ Starting from the real level of performance determined, internal auditors have to find solutions for improving internal audit strategy if it's necessary in order to assure the top level of effectiveness.

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