

## INTERNAL AUDIT – AN EVALUATION OF AUDIT EFFECTIVENESS IN A POLISH COAL MINE

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### ABSTRACT

*The main objective of quality management system is customer satisfaction with the quality of a product. Therefore, the system should be in constant process of improvement, development and control. Internal audit is one of the tools that affect the process of implemented quality management system improvement.*

*Results of a study carried out in a Polish coal mine have been presented in the article. The authors review some questions included in a questionnaire regarding the effectiveness of internal audit within the scope of quality management. The questions were presented to the coal mine employees, so findings are based on the employees' judgments regarding the quality management system implemented in the mine. In addition, internal audits' documentation covering a five-year period was analysed to enrich the article's conclusion.*

**Keywords:** quality, internal audit, questionnaire study, audit documentation, effectiveness

### 1. INTRODUCTION

The increasing importance of quality and management systems forces enterprises to look for factors which influence their effectiveness and efficacy – one of such tools is internal audit. The main goal of an audit is to collect reliable and verifiable evidence, which allows confirming the conformity with particular requirements. It is necessary when an organisation applies for an ISO certificate. The manner of using this tool depends mainly on the organisation.

Its effectiveness is among others influenced by such factors as:

- audit programme management,
- auditors and their knowledge,
- skills and experience,
- auditing in compliance with the adopted rules,
- optimized documentation,
- engagement of top management.

The word „audit” is derived from Latin – *auditio* means to listen to, hear, examine, interrogate [1]. An audit is frequently associated with control, although this association is not as negative as in the case of classic inspection. The definition of audit is provided in the ISO 9000 family of standards, according to which audit is: a systematic, independent, documented process of obtaining evidence of the audit and its objective evaluation in order to determine the degree of audit criteria fulfilment [2].

## **2. INTERNAL AUDIT**

The ISO 9000 standard introduced the requirement of internal audit, the aim of which is to check conformity with the standard requirement. Nonconformities are reported, providing a basis for corrective measures. The goal of the audit controlling function is to motivate employees to work more effectively [3].

The Institute of Internal Auditors define internal audit as an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes. [4].

According to another definition [5], internal audit is: A systematic, objectively evaluated activity of internal auditors, which concerns particular operations and control in an organisation and is aimed at establishing whether:

- the financial and operational information is accurate and true,
- the risk is identified and minimised,
- the external regulations as well as acceptable internal policies and procedures are observed,
- satisfying operational criteria are established,
- the resources are efficient, effective and economically used and the strategic goals are effectively achieved.

The above quoted definitions allow defining the goals to be fulfilled by an audit.

The main task of an internal audit is to provide the top management of an organisation with objective information on the functioning of the implemented control systems, the risk, possibilities of its minimisation and making improvements in order to increase the effectiveness and efficiency of its functioning [5]. These tasks vary depending on the kind of organisation, top management expectations or the skills and experience of internal auditors. They are divided into basic and detailed ones. The basic aims of an audit are to:

1. Carry out an analysis and evaluation of the internal control system:
  - identification and evaluation of internal inspections within the system,
  - reliability of the examined internal control systems,
  - counselling for the top management in the process of internal control system designing,
2. Obtain an opinion about:
  - financial statement reliability,
  - risk management effectiveness,
  - management rationality.

Detailed tasks include:

- preparation of annual and long-term plans for audits,
- risk management effectiveness evaluation,
- evaluation of the effectiveness and efficiency of resources used,
- evaluation of information flow.

The ISO 9001 standard contains directives for the auditing of quality management systems (ISO 9001) and/or environmental management (ISO 14001). In 2003 Polish Committee for Standardization issued a Polish version of the European standard EN ISO 19001:2002, which

was marked with the symbol PN-EN ISO 19001:2003. This standard covers all the crucial issues related to the auditing process, i.e. [6]:

- terms and definitions,
- auditing rules,
- audit programme management,
- directives concerning audit activities,
- directives concerning auditors.

The standard can be applied irrespective of the size of an organisation, the goal or scope of an audit. Moreover, it can be a reference point during an audit of other systems than those defined by the standard. It can also become a template for developing directives for another management system auditing.

### 3. AN EVALUATION OF INTERNAL AUDIT EFFECTIVENESS

The effectiveness of internal audits conducted in one of the mines belonging to Kompania Węglowa S.A., the largest hard coal producer in European Union, was evaluated on the basis of a questionnaire study. Apart from the questionnaire, documents related to internal audits were used to assess the effectiveness. The questionnaire, which was addressed to the management as well as coal-mine supervision employees, contained 17 basic questions and 4 so-called demographic questions. There were 47 correctly completed questionnaires, whereas 6 questionnaires contained incomplete data (which has not been taken into consideration) – the questionnaires were subjected to statistical treatment. Table 1 presents values assigned to each question.

*Table 1. Questionnaire criterion*

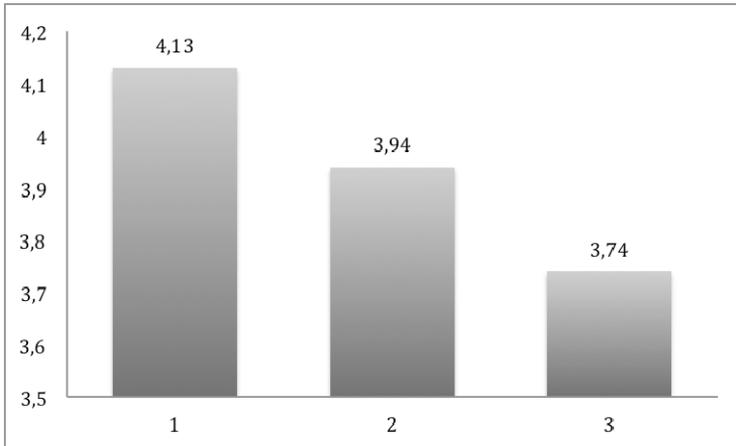
<b>Chosen answer</b>	<b>Number of points assigned</b>
I definitely do agree	5
I would rather agree	4
It is hard to say/ I have no opinion	3
I would rather NOT agree	2
I definitely do NOT agree	1

#### 3.1. Questionnaire results analysis (selected issues)

The basic question concerned the conducting of audits in accordance with the adopted schedule. The highest average evaluation reached a value of 4.13. 45% of the surveyed completely agreed with so formulated question, 34% accepted the formulated statement, whereas 6% did not have any opinion on it.

The next question was related to the access to information about the goal and scope of particular audits – the obtained average value reached 3.94, which gives it the second place in the classification of the best-assessed aspects. 74% of the respondents completely or partially agreed with so formulated question, whereas 11% had a different opinion.

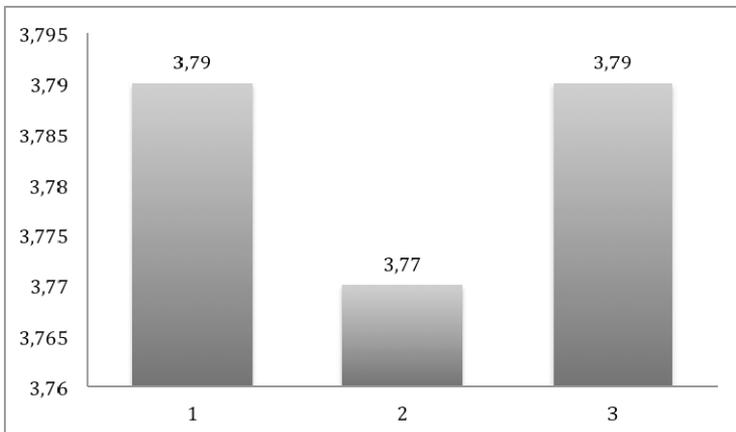
The third best-evaluated issue was “do auditors take into consideration the suggestions concerning an audit plan” – the obtained result was 3.74%. The dominant answer was “I would rather agree” – 36%, I definitely DO agree” – 26%, and 28% of respondents did not have any opinion.



*Figure 1. Opinions about audit procedure:*

- 1 – Audits are carried out according to the schedule,*
- 2 – Information regarding the purpose of internal audit and the scope of audit is easily accessible,*
- 3 – Auditors take into consideration the suggestions concerning an audit plan.*

The results concerning the question about audit reports have been presented in Fig. 2. The average marks are similar to each other – the difference between particular statements reaches 0.02.



*Figure 2. Opinions about audit reports:*

- 1 – Audit reports are communicative,*
- 2 – Audit reports contain all required information,*
- 3 – Audit reports are delivered on time.*

The post-audit activities received low marks – the average value was 3.66 (Fig. 3).

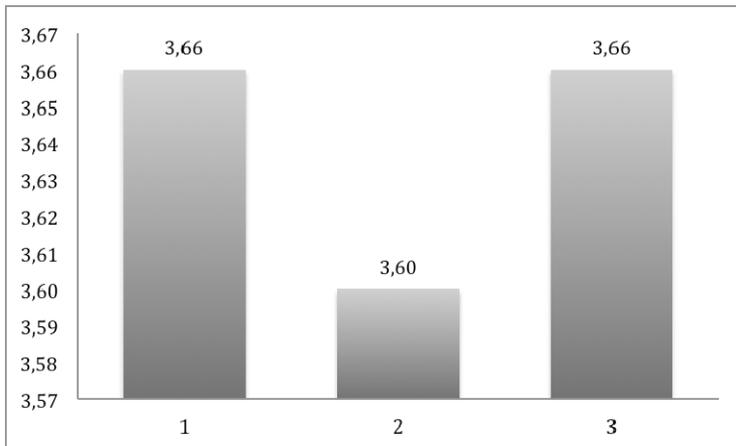


Figure 3. Opinions regarding post-audit activities:  
 1 – Corrective action is carried out after discordance detection,  
 2 – Corrective action is carried out accurately,  
 3 – In order to eliminate reasons of discordance, a preventive action is undertaken.

Definitely negative answers reached a total of 17 % and the answer „it is hard to say” – 21%; the „no” answers reached a total of 38%. On the other hand, positive answers, i.e. „I definitely DO agree” was given by 26% of the respondents, while 36% rather agreed.

The question concerning the accurate implementation of corrective measures obtained the result of „merely” 3.60 – the worst result in the whole survey. 21% completely agreed with this statement, whereas 40% partially agreed; 22% of the respondents did not have any opinion on that matter.

The last question pertained to survey whether internal audits contribute to improvement of organization functioning. Figure 4 presents the results of the survey.

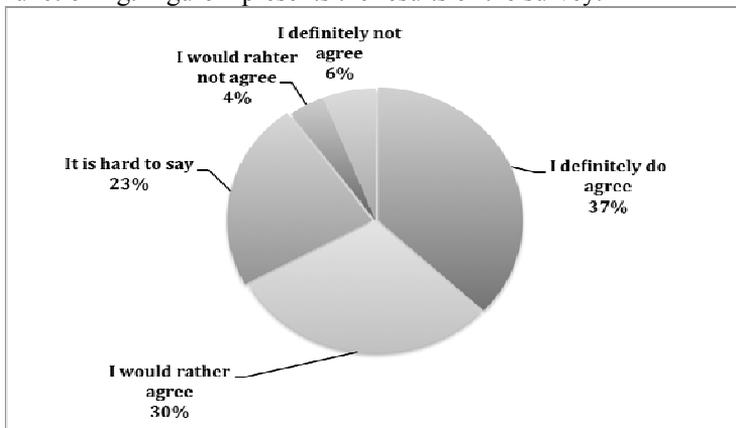


Figure 4. Internal audits contribute to increased effectiveness of the organization.

### 3.2 Documentation analysis – results

The analysis of internal audits documentation was conducted for a five-year period. Table 2 presents information regarding internal audits conducted between 2007 and 2013 [7].

Table 2. Internal audits - 2007-2011

	2007	2008	2009	2010	2011
Number of planned audits	14	14	12	9	14
Number of conducted audits	9	13	11	9	10
Number of detected discordances	5	1	0	0	0
Number of eliminated discordances	5	1	0	0	0
Number of observed insights	48	29	26	24	21
Number of eliminated insights	48	29	26	24	21

An analysis of Table 2 leads to the conclusion that all the discovered nonconformities and observed insights were eliminated. The only reservation is a difference between the planned and conducted audits – this regards in particular the years 2007 and 2011. The largest number of discordances was discovered for the year 2007 (5); in 2008 only one nonconformity was found. In subsequent years (2009-2011) no discordances were observed. The number of insights (apart from the year 2007) reaches a similar level and is relatively high (more than 20).

#### 4. SUMMARY

An internal audit is one of obligatory requirements of the ISO 9001 standard. An organisation having an implemented quality management system has to conduct internal audits (paragraph 8.2.2 of the standard). The results of an audit should be used by the management to improve the functioning of the organisation – in this case a coal mine. Audits make it possible to identify the existing irregularities and are an excellent tool for organisation improvement.

The following can be concluded from the conducted surveys:

- the level of employees' knowledge about internal audits is relatively low,
- employees' general evaluation of internal audits points to a lot of shortcomings,
- according to the surveyed, activities related to proper implementation of corrective measures (post-audit) are insufficient – the lowest score (3.60).

An analysis of internal audits allows concluding that:

- a considerable number of planned audits (25%) did not take place within the prescribed term,
- the practically unchanged number of observed insights is alarming,
- discordances almost do not exist (except the initial years 2007, 2008).

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