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Risk Estimation and Analysis in Financial Audit – Method Provided by the International Standards on Auditing

Florentin-Emil Tanasă[1]

Abstract: Over the past decades the world has changed considerably. Under the conditions of a strong expansion of the competitive environment in almost all sectors of activity, the economy has experienced significant changes. In this economic context, information has become the key resource for being competitive. It represents a value for the entities and for the society in general. It highly contributes to achieving their goals. In this article we aim to provide a synthesis of the literature on the risks encountered during the financial audit activity. The research presents a general and documented approach to the risk assessment issued by the financial auditors. Starting from the method of the audit risk assessment provided by the International Auditing Standards, the main risk factors were analyzed. The purpose of this work is to present a framework of the best practices in the analysis carried out by the financial auditors at the time of planning the statutory audit mission with regard to the estimation and analysis of risks in financial audit.

Keywords: audit risk; competitive environment; financial audit activity

JEL Classification: M42

1. Introduction

Information and knowledge are key drivers of economic and social development in the context of market globalization. The concept of knowledge was brought to the forefront in the sixteenth century by the philosopher Francis Bacon who stated that "knowledge is power". "Knowledge provides the foundations for a future society of consciousness, truth, morality, creativity and spirit" (Drăgănescu, 2014).

The risk, in different forms and sizes of manifestation, has always been present in the economy of any company. Therefore it has constantly been a field of study, in order to identify solutions that may reduce the threats facing the economic environment. At the enterprise level the risk minimization contributes to its development, to achieving superior performance with an impact on the field of activity and, implicitly, on the economy. In the area of financial audit, the risks' assessment and quantification are the bases for planning, running the mission, obtaining the audit samples, and expressing the auditor's opinion.

The occurrence of the risk may cause the entity's failing to achieve its objectives. Hence, there is the need to implement a system for risk's identification and evaluation that minimizes exposure to uncertainty, of course, within reasonable tolerances. Normally and logically the implementation of such a process cannot take place without defining the objectives that must be met at different levels of organization, depending on the real and possible risks.

The word "risk" comes from the Latin word "riscare", which means "to dare". Thus, "risk is a choice, not a fate" (Ghiță, 2009, p.81). By analyzing the numerous definitions of the risk (Dobrotă, 2000, p.37; Cosma, Cosma, 2009) one can notice its double valence. On the one hand, it is an event or

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process characterized by uncertainty and probability of occurrence with a negative impact on an entity's objectives. On the other hand, it can get positive connotations; risk can become an opportunity that can or cannot be exploited by the enterprise. "The development of contemporary society was made possible dueto risk-taking. Thus, the economic growth could not be achieved if the certainty was put first in terms of risk and uncertainty" (Morariu, Petroianu, 2013, p.22). Corroborated, the "reason" of any economic entity's existence and activity is to generate profit for the owner as a result of taking risks. Will anyone invest in shares whose yield is inferior to that of government securities? Of course not!

2. Audit Risks – Literature Review

Starting from the assumption that the risk is associated with the uncertainty, or rather with the exposure's effects to uncertainty, its measuring becomes a difficult process to achieve. The identification and evaluation of the audit risk falls within this general understanding of the implications for the mission. In order to achieve its objective, such as the extent to which companies' financial statements present a true and fair view of their financial position and performance, the auditor should obtain probative elements to justify the audit's opinion (Horomnea, 2010). An effective management of the mission requires a correct assessment of the audit risk as a fundamental step in determining the methods, techniques, nature and extent of the procedures (Causholli, Knechel, Lin, Sappington, 2013, pg.573-605). "The procedure is carried out from the first phases of the planning process, immediately after gathering of main information about the customer and the evaluation of its internal control system. (Horomnea, 2014, p.129). The approach adopted is also a key factor in the performance completion of the mission.

There are four main different approaches to auditing:

- *Substantive Procedures Audit Approach*: the tests are performed on large volumes of transactions with no particular emphasis on the significant areas;

- *Balance Sheet Audit Approach*: The fundamental procedures focus on the assessment of the financial position and the profit and loss account is very little analyzed. The profit and loss account will not be materially distorted if the analysis of the balance sheet's statements leads to the reasonable conclusion that they are fairly presented;

- *System Based Approach*: requires the assessment of the effectiveness of the internal control of the entity and then directing of the substantive procedures to those areas where it is considered that the assertion objectives of the financial statements cannot be fulfilled;

- *Risk Based Approach*: resources are aimed at identifying significant areas and systems that may contain distortions as a result of the risks facing the entity (operational, financial or non-compliance with legislation and regulations).

Taking into account the nature of the audit process, each mission represents a new challenge for the professional accountant. There are no two identical entities in terms of activity, location, size, number of employees, or corporate governance structure. However, it is generally accepted that a risk-based approach will minimize the risk of failure in achieving the audit's objectives.

The first models for determining audit risk were developed in the 1980s. A well-known and widely used approach today is the model proposed by AICPA (American Institute of Certified Public

Accountants), the audit risk being estimated using the inherent risk, control risk and detection risk. Currently, the most common audit risk assessment methods include risk factor analysis, qualitative risk approach, fuzzy theory (Chang, 2008, pp. 1053-1067), Bayesian model (Srivastava, Shafer, 1992, pp. 249-283), or trust model (Srivastava, Shafer, 1992, pp. 249-283). In our country, there are used the following techniques for estimating the audit risk: the statistical survey technique, the matrix of the audit valuation criteria on the significant areas and the risk synthesis matrix. *Due to the lack of information or of the standardized technical guidance, the Romanian auditors often make use of the risk representation in qualitative terms, based on their professional judgment (Dănescu,2007, pp.23-146).*

The audit risk issue is presented in ISA 315 - *Identifying and Assessing the Risks of Material Misstatement through Understanding the Entity and its Environment*. The standard guides the auditors to a risk-based approach of the mission. According to the mentioned regulation „the objective of the auditor is to identify and assess the risks of material misstatement, whether due to fraud or error, at the financial statement and assertion levels, through understanding the entity and its environment, including the entity's internal control, thereby providing a basis for designing and implementing responses to the assessed risks of material misstatement" (CAFR, ISA 315, p.278). For the risk assessment, the auditor is required to focus on the entity and its environment. This approach asks in the first instance for identification of the key operational risks faced by a business. The second step is to quantify the impact of these risks on the financial position and performance of the entity. The planning of audit procedures is the last step in this approach. For these reasons we can still use the term "business risk approach" as part of the audit risk.

Audit risk expresses the likelihood that the auditor mayissue an inappropriate opinion, being represented as a function of the risks of material misstatement of financial statements (inherent risk and control risk) and detection risk. The literature presents numerous studies addressing the problem of factors that influence the assessment and its estimation (AICPA, SAS 47, 1983; Arens, Loebbecke, 2003).

Beattie (Baettie, 2002, apud Chang, 2008, pp. 1053-1067) classifies these factors into two categories, as follows:

a. "auditor's risk" means the risk caused by the professional accountant's inability to detect significant misstatements, as a result of his assessments regarding the integrity and attitude of the management, the understanding of the audited company environment, the scale and complexity of the operations, the expertise and experience of the specific transactions performed by the entity (such as the auditing derivative financial instruments), not properly identifying significant systems, and limiting procedures due to the increased cost or inappropriate materiality;

b. "mission risk" refers to the degree of influence that an incorrect audit report may have on the client entity. Among these factors, we include the perception of external users about the company's financial statements or the probability of facing financial difficulties for the audited entity after presenting an incorrect audit report.

According to ISA 315 (CAFR, ISA 315), the audit risk does not include the possibility for the auditor to express a qualified opinion or an adverse opinion when the financial statements are not distorted. It also does not refer to the risk that the auditor assumes as a result of possible disputes arising from the issuance of opinion in the audit report or negative advertising. "It is an economic or a business risk for the auditor or for the audit firm" (Horomnea, 2014, p.131).

Inherent risk consists in the possibility of a significant error arising from the particularities of the company, the nature of the accounts or the transactions carried out. It expresses the extent to which the auditor evaluates the probability that some assertions may be erroneous, being considered as weaknesses in the internal control. Inherent risk has two components: general risk and specific risk.

Control risk is the probability that a significant individual or cumulative distortion that might occur in an assertion not being prevented, detected and corrected in due time by the internal control (Bedard, Graham, 2002, pp. 39–56) It is important to note that the auditor has no control over the extent of inherent and control risk. However, it should be evaluated in order to determine the volume and nature of the audit tests needed to provide at a confidence level of at least 95% that the information presented in the financial statements is accurate (Messier, Austen, 2000, p. 119). These are the general risks of all entities.

Detection risk means the uncertainty generated by the fact that the auditor's procedures will not detect significant (individual or cumulative) misstatement that exists in a financial statement's assertion. Among the factors influencing the assessment of the detection risk can be mentioned: the inappropriate audit planning, the misunderstanding of the assessment results of the inherent and control risk, the adoption of random procedures, erroneous calculation of significance thresholds, selection of unrepresentative samples or non-participation in inventory.

The relations between the audit risks are as follows:

$$RDP = \frac{RAA}{RI \times RC} \text{ or } RDP = \frac{RAA}{RDS}$$

RDP = planned detection risk;

RDS = risk of material misstatement;

RAA = acceptable audit risk.

In the literature (Khurana, Raman, 2004, pp. 473–495), the risk of material misstatement is sometimes referred to as "audited risk" or "risk of occurrence" because it represents the risk of significant misstatements in financial statements prior to the beginning of the audit process. The levels of the inherent risk and control risk are the primary variables for estimating the planned detection risk.

This latter indicator expresses the amount of substantial samples that the auditor plans to collect and it is inversely proportional to the RDS size.

The planned detection risk is influenced by the following factors:

- nature, timing and extent of audit procedures performed;
- sampling risk - choosing an unrepresentative sample;
- observation risk.

Summarizing the information presented above, the relationship between audit risks, significant information and audit evidence is presented in Figure 1.

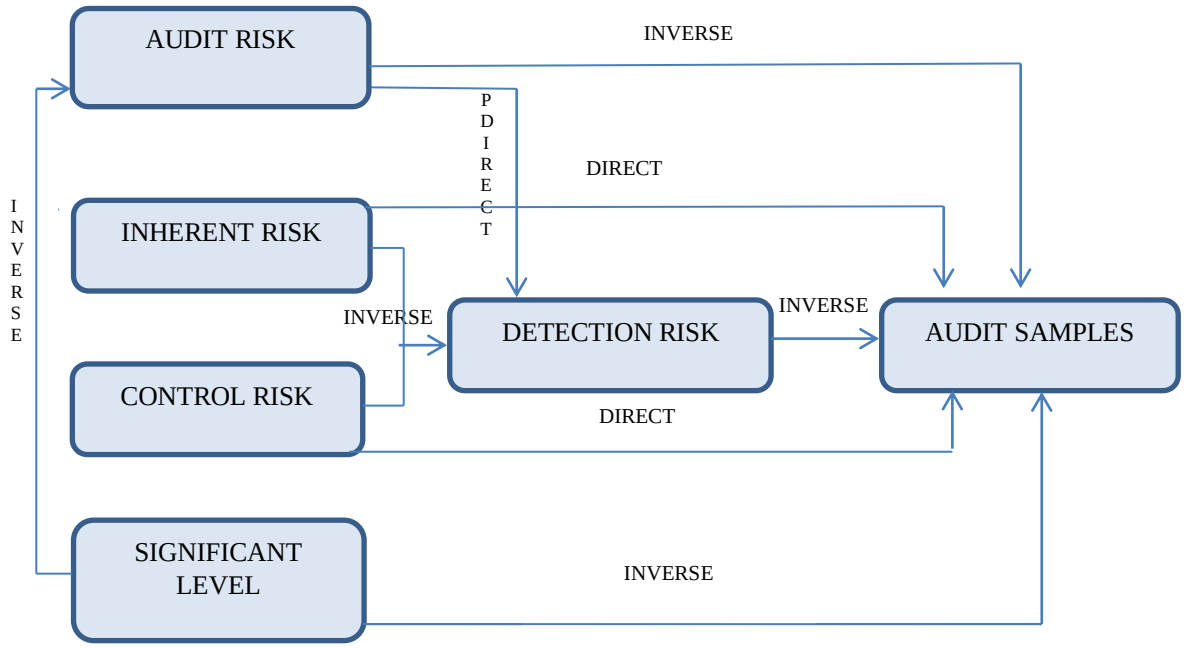

Figure 1. The relationship between audit risks, significant information and audit evidence

Source: own projection

2.1. Audit Risk Assessment by the Method Provided by Standards

The mathematical model for setting the audit risk was proposed in 1983 by the American Institute of Certified Public Accountants (AICPA) and it is still used nowadays. According to this method, the audit risk consists of three components (inherent risk, control risk, and detection risk). It starts from the idea that the level of the audit's confidence should exceed 95%. In the literature the method expresses more a way of thinking across the audit risk than its actual estimation. Also, the size of the samples will be determined on the basis of the relationship between the risks.

The assessment of the risks of material misstatement at the level of the financial statements is an essential stage of any audit mission. For their analysis, it is necessary to understand the main objectives of the business, the economic context in which it operates and the confidence in its internal controls.

We present below a general approach to the documentation and risk assessment (Figure 2).

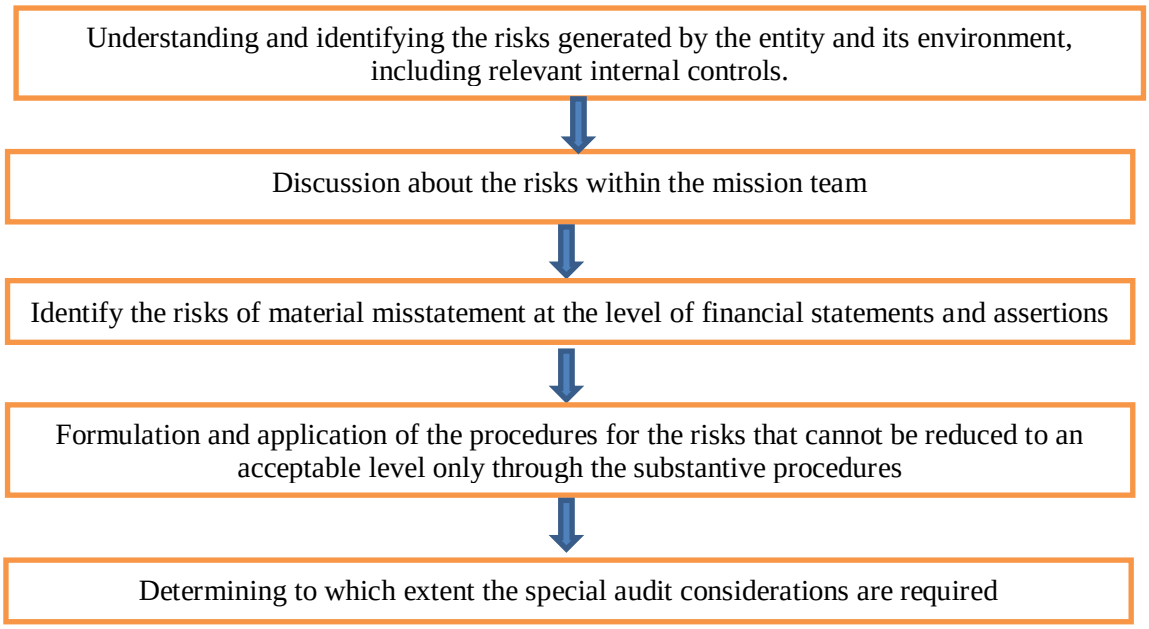

Figure 2. Overall approach to risk assessment in the audit mission

Source: own processing based on "Guide for financial audit Quality", published by The Institut of Chartered Accountants of Scotland and Chamber of Financial Auditors of Romania, Bucharest, 2012

2.1.1. Inherent Overall Risk Assessment

For determining the inherent general risk, several factors are considered:

- aspects related to management;
- accounting environment;
- operational environment;
- audit issues.

Based on the model presented in *"Guide for financial audit Quality"*, published by the Institute of Chartered Accountants of Scotland (ICAS) and Chamber of Financial Auditors of Romania, Bucharest, 2012) and other risk factors considered to be relevant, we proceeded to estimate the inherent risk (Table 1).

Table 1. Inherent risk

Risk factor	1	2	3	4	5	Remarks
	Very low	Low	Medium	High	Very high	
Management issues	1	8	3	0	0	
The extent to which shareholders are also managers			x			
Financial position of the client		x				
Client's liquidity		x				
Evaluation on the integrity of management		x				

The extent to which the financial statements are used by external parties			x			The company is listed on BVB
Management expertise on business environment		x				
Level of leadership rotation	X					
Focus on preserving the level of earnings			x			
Management's attitude to financial reporting		x				
Previous experience with regard to the adequacy of the control exerted by the management		x				
History of regulations' violation		x				
Remuneration levels corresponding to the nature and performance of the activities		x				
The accounting environment	0	7	2	1	0	
Competence of the accounting staff		x				
Attitude of the accounting staff			x			
The probability of false, inappropriate or delayed financial information			x			
The extent to which significant transactions or adjustments occur at the end of the financial year		x				
Older evidence of intentional change in financial statements to improve financial results		x				
Transactions difficult to audit		x				
New or complex accounting policies		x				
The level of uncertainty associated with accounting estimates		x				
The complexity of the corporate and accounting structure		x				
Risk factors	1	2	3	4	5	Remarks
	Very low	Low	Mediu m	High	Very high	
Interruptions or malfunctions of the accounting system				x		Modification of the computer system
The operational environment	1	9	0	0	0	
Evolution of the business sector		x				
Legal actions initiated against the company or the management	x					
Changes in profitability/liquidity		x				
Relationship with the bank / External financiers		x				
Probability of withdrawal of an important investor		x				
Business threats related to activities		x				
The intention to obtain a significant new funding		x				
Significant purchasing plans, expanding of the production capacity		x				
Performance level compared to the overall sector		x				
Significant customers		x				
Audit issues	1	4	0	0	0	

Qualified or amended/modified past audit opinions	x					
Reporting with regard to the continuity of business		x				
Auditor's relationship with senior management		x				
Estimation of difficulties in obtaining audit evidence		x				
Transactions specific to the field of activity, difficult to audit		x				
TOTAL	3	28	5	1	0	
Relevance to each type of risk	10%	15%	20%	25%	30%	100%
Calculation of the general level of RI:	(3*10%+28*15%+5*20%+1*25%)/37*100 = 15,54%					

Source: own processing based on "Guide for financial audit Quality", ICAS Scotland and CAFR Romania, 2012

The calculated value for the inherent overall risk is approximately equal to the percentage attached to the **"low"** level of risk and has a value of 15.54%. As a number of 31 from the 37 statements analyzed present a low or very low risk and 5 assertions present a medium level of risk, we have assessed a low level of the inherent overall risk. At the same time, an assertion presents a high risk due to changes in the computer system because of repeated disruptions or interruptions.

2.1.2. The Assessing the Level of Control Risk of a Company

The risk assessment is performed in two stages:

1. Preliminary assessment - consists in testing the effectiveness of the company's internal control system, from the point of view of its contribution, to the prevention and correction of significant errors;

2. Final evaluation - involves assessing the quality of internal control by identifying:

Its strengths materialized in the ability to prevent or detect a significant error or fraud and the ability to effectively correct it;

Its weaknesses generated by errors appeared during the application of the procedures and the wrong design of the system.

Starting from the information obtained by the analysis of the entity's control environment and after testing of the accounting systems, we proceeded to assess the client's control risk, based on the factors considered to be relevant for our approach (Table 2).

Table 2. Assessing the level of control risk of a company

Risk factors	1	2	3	4	5
	Very low	Low	Medium	High	Very high
Users of the accounting system			x		
Overlapping of the manual controls over the automatic ones				x	
Authorization of entries		x			
Check digit - unable to enter an erroneous code				x	
Duplicate transactions					x
The program runs unsatisfactorily when it is overloaded					x
Missing functionalities				x	
Using an authorized software	x				

Designation of people who have the right to install new programs		x			
Explicit error messages				x	
Quality of assistance provided to the user				x	
Distribution of outflows to the authorized persons		x			
The extent to which registration, reporting and correction of identified errors are made			x		
Monitoring the users' activities					x
Computers used				x	
Real time consultation		x			
Compliance with legal provisions		x			
Systems' maintenance			x		
Managing accounts and passwords				x	
Timely disable of the accounts of the people who leave the company					x
Risk factors	1	2	3	4	5
	Very low	Low	Medium	High	Very high
Limiting unsuccessful attempts to sign in to an account					x
The ability of the user to control his own account				x	
Remote access				x	
Respecting the separation of functions				x	
Making backups			x		
TOTAL	1	5	4	10	5
Relevance to each type of risk	10%	15%	20%	25%	30%
General level computation:	(1 x 10% + 5 x 15% + 4 x 20% + 10 x 25% + 5 x 30%) / 25 x 100 = 22.6%				

Source: own analysis based on "Guide for financial audit Quality", 2012

The calculated control value is 22.6%, being approximately equal to the percentage related to the "high" risk level. Out of the 25 assertions analyzed, the most important share is held by assertions that are associated with a high control risk.

2.1.3. Acceptable Audit Risk Assessment

The audit risk is represented as a function connected to the risk of material misstatement and the risk of the planned detection. The inherent risk was previously estimated at a level of 15.27%. The control risk was also assessed at 22.6%. The risk of material misstatement is expressed as a combined level of the inherent and the control risk and has a value of 3.45%.

The planned detection risk and the combined level of inherent and control risk are inversely related, $RDP = \frac{1}{RIxRC}$. In our case, the planned detection risk is 28.97% or 0.29. For RDP equal to 0.29, the auditor plans to collect samples up to the level at which the risk of misrepresentations whose value exceeds the tolerable error is reduced to 29%.

Acceptable audit risk = inherent risk x control risk x detection risk = 1% =>a level of insurance of 100% - 1% = 99%

3. Conclusions

The audit risk assessment is a complex and continuous process that takes place starting from the collection of the preliminary information regarding the entity until the opinion is issued. An incorrect estimate of this process may lead to a misallocation of resources and implicitly to inefficient and ineffective results. An important role is played by the professional accountants' judgment, which may be influenced by different factors such as: the working environment, personality, the nature and time allocated for collecting the samples, the decision-making process within the audited entity, and the established quality characteristics. Throughout the article we intended to provide a general approach by professional accountants on documentation and evaluation of the audit risks.

The audit risk issue is presented in ISA 315 - Identifying and Assessing Risks of Material Misstatement by Understanding the Entity and its Environment. Through this standard the auditors are guided by a mission-based approach. Because the auditor is required to focus on the entity and its environment in risk assessment, this approach starts, in the first instance, with the identification of the key operational risks faced by a business. The second step is to quantify the impact of these risks on the financial position and performance of the entity. The last step in this approach is the planning of the audit procedures. For these reasons we can further use the term "business risk approach" as part of the audit risk.

In the second part of the research, the audit risk analysis is carried out within a company listed on the Bucharest Stock Exchange, starting from the method recognized by the International Standards on Auditing. The main factors analyzed were:

1. the inherent risk, taking into account management issues, the accounting environment, the operational environment, audit issues, the control environment, and the accounting systems tested;

2. the control risk, by studying the entity's control environment and testing the accounting systems.

Starting from the inherent and control risk, the risk of material misstatement is determined. The auditor plans to gather evidence up to the level where the risk of misrepresentations whose value exceeds the tolerable error is reduced to 29%. In any event, the auditor will gather evidence so that the acceptable audit risk does not exceed 1%, and the confidence in the audit opinion is at least 99%.

4. References

(2012). *Guide for financial audit Quality*. Bucharest: The Institut of Chartered Accountants of Scotland and Chamber of Financial Auditors of Romania.