

ASSESSMENT OF THE RISK OF MATERIAL MISSTATEMENT IN AN AUDIT OF FINANCIAL STATEMENTS

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Abstract. The aim of the research is to analyze the aspects of the risk of material misstatement assessment and to identify opportunities for improvement of existing risk assessment models. An incorrect risk assessment may be a key factor leading to an audit failure, therefore the auditor's ability to identify the risk of material misstatement is one of the most important factors in determining the effectiveness of a risk-based audit. Due to the importance of risk assessment scientists paid a lot of attention to the concept of risk of material misstatement and aspects of its assessment. However, despite the fact that number of audit risk assessment models have been proposed by researchers, auditors still face difficulties in assessing the risk of material misstatement. The results of the research highlight main aspects of the risk assessment in financial audit including factors affecting the risk of material misstatement and reveal key elements for improving current risk assessment models that can be applied in developing an improved model for assessing the risk of material misstatement. Compared to previous studies, this research emphasizes the importance of risk assessment in the relation to specific risks containing fraud, accounting estimates and going concern, the uncertainty and complexity of which is also emphasized in the auditing standards.

Research methodology: systematic analysis, comparison and generalization of scientific literature and auditing standards.

Keywords: audit, risk assessment, risk of material misstatement, control risk, inherent risk

JEL Classification: M42 – Auditing

Introduction

The auditor's ability to identify the risk of material misstatement due to error or fraud is one of the most important factors in determining the effectiveness of a risk-based audit. The key premise of a risk-based audit is that auditors should assign more resources to financial statements line items that are more likely to be misstated and less to those that are less likely to be misstated (N. Kozloski et al., 2011; P. Coetzee et al., 2014). Based on the identified risks, audit procedures are planned to gather sufficient audit evidence and express an opinion based on them. Therefore, an incorrect risk assessment may result in the audit evidence obtained being insufficient to express an appropriate auditor's opinion on client's financial statements. However, risk assessment is subjective and insufficient understanding of risks may be a key factor leading to an audit failure. Due to the importance of risk assessment, a number of audit risk assessment models were suggested by the researchers, however bankruptcies and frauds occurred in recent years in companies around the world (e.g. Wirecard (2020), Luckin Coffee (2020), 1Malaysia Development Berhad (2018), Wells Fargo (2017), Valeant Pharmaceuticals (2015), Toshiba (2015), etc.), whose financial statements have been audited by external audit firms, show that auditors still face difficulties in assessing and responding to the risk of material misstatement. These large-scale failures not only affect the audited entities or their stakeholders, but can also have a significant negative impact on public attitudes toward audit activities and their confidence even in audited financial statements (IAASB, 2021). The *Covid-19* pandemic has also increased uncertainty in the markets and caused financial difficulties in companies around the world (PCAOB, 2020; IAASB, 2020). Due to the current uncertainty, regulators emphasized the importance of risk assessment, highlighting that the consequences of a pandemic

could expose companies to new risks that the auditor had not previously identified. The above-mentioned major cases of bankruptcy and fraud in recent years show that the assessment of material misstatements is not always sufficient, and therefore a proper assessment of the risks of error or fraud is an important topic in an audit of financial statements.

The object of the research is assessment of the risk of material misstatement.

The aim of the research is to analyze the aspects of the assessment of the risk of material misstatement and to identify opportunities for improvement of existing risk assessment models.

In order to achieve this aim, the following **tasks** are addressed:

1. to analyze the context of the risk of material misstatement and the auditor's responsibility in assessing it;
2. to examine the peculiarities of assessing the risk of material misstatement;
3. to compare risk assessment models and identify opportunities for improvement;

Research methodology: systematic analysis, comparison and generalization of scientific literature and auditing standards.

1. Concept of the risk of material misstatement

Like any activity, an audit is also conditioned by certain risks that are collectively defined as audit risk (S. Selisteanu et al., 2015, 133). ISA 200 (2009) divides this risk into the risk of material misstatement and the detection risk. This distinction of audit risk is based on the auditor's ability to influence those risks (A. M. Joldos et al., 2010, 229): the risk of material misstatement depends on the characteristics of the audited entity that are beyond the auditor's control; and the detection risk depends on the extent of the procedures planned by the auditor. Detection risk is the risk that the procedures planned by the auditor will not be sufficient to achieve the audit objective – i.e. will not identify significant misstatements that could affect the decisions made by users of financial statements (L. Eimanavičiūtė et al., 2014, 31; E. G. Peter, 2013, 100; A. D. Akresh, 2010, 69). Thus, it can be argued that detection risk is one that the auditor can control during the audit, i.e. by changing the type or extent of audit procedures, the auditor may change the level of detection risk. However, this risk is directly related to the risk that the auditor cannot control - the risk of material misstatement which is divided into inherent risk and control risk (R. Jankūnaitė et al., 2005, 72; K. Ruhnke et al., 2014, 249; C. C. Munteanu, 2015, 96).

Based on definitions of these risks in the literature (ISA 200, 2009; A. Voiculescu et al., 2014; L. Eimanavičiūtė et al., 2014; D. Botez, 2015; C. C. Munteanu, 2015; J. D. Staniuliene et al., 2009; J. Mackevičius et al., 2018), it can be stated that the inherent risk is the probability that the financial statements may be materially misstated due to factors related to the company and its environment, and the control risk is the probability that the internal controls will be unable to identify, prevent or warn of material misstatements that may exist in the financial statements. Inherent risk exists in each entity, whether or not the entity has an effective internal control system. Therefore, this risk does not depend on whether controls are working effectively or not.

Inherent risk is related to the characteristics of the company and the environment in which it operates. Various researchers (J. Mackevičius et al., 2012; K. Ruhnke et al., 2014; C. C. Munteanu, 2015; S. Selisteanu et al., 2015; D. Botez, 2015; P. Nikolovski et al., 2016; R. Florea et al., 2012; G. S. Monroe et al., 1993) analyzed factors influencing the level of inherent risk and usually distinguishes the following factors: (1) the specifics of the client's business and industry; (2) management characteristics (honesty, reputation, experience, motivation and pressure on management); (3) the size of account balances, the number and nature of transactions (unusual or complex transactions); (4) account balances and disclosures (valuation uncertainty, complex calculations); (5) assets susceptibility to misappropriation or loss. However, inherent risk is caused by more conditions, which are usually divided into internal and external (J. Mackevičius et al., 2018, 75). Factors affecting inherent risk and their impact on its level are presented in Table 3. In addition to these factors, the auditor should consider unusual relationships identified by performing analytical procedures that may alert to the risk of misstatement in the financial statements.

Table 3: Factors influencing the level of inherent risk and their impact

Factors		Risk increasing conditions
Internal factors	Specifics of the client's business and industry	Cyclical, developing or declining industry; offering new products or services; entering a new market; newly established company; the complexity of the manufacturing process.
	Management honesty, reputation and experience	Inadequate management, poor management reputation, lack of experience and knowledge in management; changes in management.
	Management motivation and pressure	Unusual pressure on management to achieve expected results; bonus policy where bonuses depends only on the financial results.
	Size of account balances, number of transactions	A large number of significant transactions
	Account balance and disclosure	The valuation of account balances involves a high degree of estimation uncertainty; complex calculations are used to determine the balance of accounts; litigation and contingent liabilities arising therefrom.
	Nature of operations	Unusual and complex operations; a large number of transactions at the end of the reporting period.
	Assets susceptibility to misappropriation or loss	Assets can be easily stolen or misappropriated.
	Going concern	Lack of working capital; loss of important customers; limited funding opportunities; loss-making activities; non-compliance with covenants or restrictions.
	Results of previous audits	Misstatements found in previous audits; the management of the company is not intended to correct misstatements.
	Experience in auditing a client	First year audit; the company was not audited in previous years.
	Internal accounting system	Complex accounting system; changes or implementation of new accounting systems; non-automated accounting system.
	Management structure	Dominance of one person in management.
	Control system	The internal control system is missing or weak.
	Staff turnover and experience	Lack of experience of staff responsible for accounting and financial reporting; frequent turnover of key staff.
	External factors	Number of operating locations
Accounting policy		Changes in accounting policies; previous disagreements with management over the chosen accounting policy and its application.
Related parties		Significant related party transactions; transactions are not based on arm's length principle.
External factors	Economic political environment	Unstable economic situation; client's performance is highly dependent on changes in external factors; strong competition in the market; political constraints.
	Technological processes	Use of new technologies; rapid technological progress.
	Legal regulation	Client's activities are strictly regulated; interest of the supervisory or governmental authorities in the activities of the company.

Source: compiled by the author based on G. S. Monroe et al. (1993), R. Florea et al. (2012), J. Mackevičius et al. (2012), K. Ruhnke et al. (2014), D. Botez (2015), C. C. Munteanu (2015), S. Selisteanu et al. (2015), P. Nikolovski et al. (2016), J. Mackevičius et al. (2018), ISA 315 (2013).

In response to aspects of inherent risk, management develops internal control systems that prevent the occurrence of material misstatements (C. C. Munteanu, 2015, 101). COSO (The Committee of Sponsoring Organizations of the Treadway Commission, 2013) defines internal control as a process performed by a company's board of directors, management, and other personnel to achieve operational efficiency, reliability of financial information, and compliance with laws and regulations. ISA 315 (2013) describes internal control as the procedures established and maintained by those charged with governance or management to achieve the reliability of information, operational efficiency, effectiveness, and compliance with laws and regulations. It can be stated that internal control is the processes implemented in the company, which determine the efficiency of the company's operations and the accuracy of financial statements. The importance of proper internal control in preparing reliable financial statements was supported by a study by R. J. Elder et al. (2009), the results of which showed that auditors are more likely to issue qualified opinions to companies with weak internal control. Because control risk is defined as the probability that the controls in place

within an entity will not be able to detect material misstatements, the effectiveness of internal control systems is an essential criterion that reflects control risk.

2. The auditor's role in identifying material misstatements in the financial statements

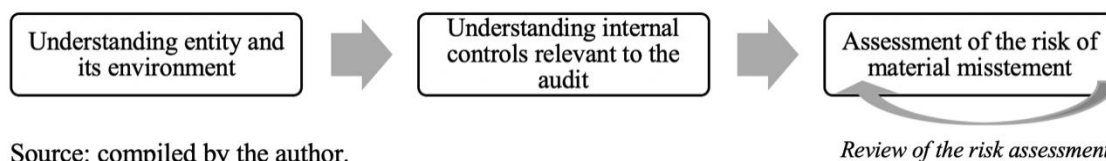
From the advent of the audit profession until the mid-twentieth century, it has been considered that the primary responsibility of the auditor is to detect fraud (I. B. Robu, 2012, 2). However, following the McKeesson&Robbins fraud scandal in 1938, audit practitioners agreed that the detection of fraud should not be the primary goal of an audit (C. C. Albrecht et al., 2001, 3). The AICPA (American Institute of Certified Public Accountants) responded to this scandal by issuing several auditing standards (SAP 1 "Extensions of auditing procedure" and SAP 30 "Responsibilities and functions of the independent auditor in the examination of financial statements"), which state that the procedures for expressing an opinion on the financial statements are not specifically designed and cannot be relied upon to identify deficiencies and other similar irregularities. Although in essence - in the form of an opinion on the accuracy of the financial statements - an audit can be considered as a measure of preventing fraud and errors, the auditor is not and cannot be held responsible for their prevention (D. I. Topor, 2017, 342). International Standards on Auditing define that the responsibility for the prevention and detection of fraud lies with management and those charged with governance (ISA 240, 2009). M. S. M. Salem (2012, 218) also points out that auditors are not responsible for fraud prevention and identification. Although the auditor is not and cannot be held responsible for fraud and error, the work performed by the auditor still can be a significant measure in deterring the occurrence of errors and fraud (A. C. Bunget et al., 2009, 117).

Although in International Standards on Auditing and in the work of authors who have examined auditor's responsibilities (I. B. Robu, 2012, 1; P. Al-Khoury et al., 2015, 632; D. I. Topor, 2017, 342; C. Ionescu, et al., 2016; 174; M. S. M. Salem, 2012, 218; A. C. Bunget et al., 2009, 117) it is stated that the role of the auditor is to plan and perform the audit in such a way that it can be reasonably expected that all material misstatements have been identified and that the management is responsible for the accuracy of the financial statements, there are still audit expectation gaps between stakeholders and auditors. The expectation gap reflects the different expectations of the auditors and the public, especially users of financial statements, about the audit function (A. Gold et al., 2012, 286). In essence, the audit expectation gap is the difference of opinion between what the public perceives as the responsibility of auditors and what auditors perceive as their own responsibility. Most research has identified that one of the biggest gaps is the different views of auditors and stakeholders to auditor's responsibilities for fraud detection and prevention (A. A. S. Al-Dhubaibi, 2020, 280). In response, the International Accounting and Assurance Standards Board has issued a revised ISA 700 "Forming an Opinion and Reporting on Financial Statements". The revision was made to improve users' understanding of the audit, to align users' expectations with the actual responsibilities of the auditor and management and the reliability of the audited financial statements. This amendment brought into effect the updated wording of the auditor's opinion, which sets out the responsibilities of the management and the auditor, the nature, scope and procedures of the audit. However, A. Gold et al. (2012, 286) indicated that the revision of ISA 700 did not reduce the audit expectations gap and argued that a clearer and broader explanation in the opinion could potentially have a positive effect on reducing the audit expectations gap.

Thus, International Standards on Auditing emphasize management's responsibility for the prevention and detection of fraud and error. Although the auditor is not responsible for errors and fraud in the financial statements, the auditor should obtain sufficient appropriate audit evidence to provide reasonable assurance that the financial statements are free from material misstatement. However, the author emphasizes that if the audit was not performed in accordance with auditing standards (i.e. the auditor lacks competence and did not obtain sufficient appropriate audit evidence to support the opinion) and therefore, the auditor was not able to identify material misstatements that would have been identified in proper application of auditing standards, the auditor may be held liable for issuing an incorrect opinion on company's financial statements.

3. Assessment of the risk of material misstatement

The auditor cannot control the risk of material misstatement, but may evaluate it and plan appropriate procedures in response to assessed risk (E. G. Peter et al., 2013, 99; W. F. Messier, 2000, 120). The assessment of inherent and control risks is performed during audit planning and includes the following key steps (see Figure 1):



Source: compiled by the author.

Figure 1: Risk of material misstatement assessment process

The assessment of the risk of material misstatement is a process that is based on the results of the two previous stages of the audit - understating entity and its environment and internal controls. This enables the auditor to anticipate risks that could lead to the material misstatement (N. Kotchetova et al., 2006, 5). At this step the auditor analyzes both the quantitative and qualitative factors based on which level of the risk of material misstatement is determined. This assessment is based on information obtained during audit planning, so the auditor's assessment may change during the audit (C. C. Munteanu, 2015, 102). For example, in performing audit procedures, the auditor may obtain information that differs from the information on which initial assessment was made. In such cases, the auditor should review the assessed level of risk and, if necessary, revise it.

3.1. Inherent risk assessment

In preparing the overall audit plan, the auditor evaluates the inherent risk at the level of the financial statements as a whole, and in preparing the audit program, the auditor should link this assessment to significant assertions about account balances and transactions (E. G. Peter et al., 2013, 99). In this respect, the analysis of inherent risk aspects in the literature (E. G. Peter, 2013, 100; A. D. Akresh, 2010, 72; J. Mackevičius et al., 2018, 74; C. C. Munteanu, 2015, 100) often emphasizes the separation of inherent risk factors between those that may affect specific assertions and financial statements as a whole (see Table 4).

Table 4: Inherent risk factors at the level of financial statements and assertions

At the level of financial statements	At the level of account balances and transactions assertions
Specifics of the client's business and industry	Size of account balances, number of transactions
Management honesty, reputation and experience	Account balance and disclosure (uncertainty related to account balances and disclosures, complex calculations)
Management motivation and pressure	
Going concern	
Experience in auditing a client	Nature of operations (unusual operations, complexity of operations)
Management structure	
Control system	Assets susceptibility to misappropriation or loss
Staff turnover and experience	Results of previous years' audits
Number of operating locations	Internal accounting system
Economic political environment	Accounting policy
Technological processes	Related parties (significant transactions with related parties)
Legal regulation	

Source: compiled by the author based on G. S. Monroe et al. (1993), P. Nikolovski et al. (2006), R. Florea et al. (2012), J. Mackevičius et al. (2012), K. Ruhnke et al. (2014), D. Botez (2015), C. C. Munteanu (2015), S. Selisteanu et al. (2015), J. Mackevičius et al. (2018), ISA 315 (2013).

The breakdown of factors between the financial statements and the assertion level shows that factors at the financial statement level may affect not only certain assertions but also many financial statements line items or all financial statements (for example, significant technologies changes may have impact on company's products obsolesce and thus can increase the risk on the impairment of inventories and property, plant and equipment or even the going concern). And factors at the level of assertions of account balances and transactions relate to a specific item in the financial statements and affect only specific assertions (for example, complex calculations related to the recoverable amount of non-current assets relate to accuracy and valuation assertions).

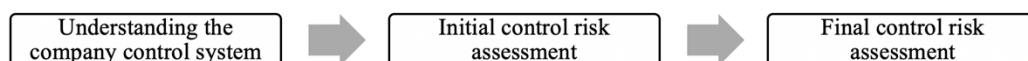
Despite the fact that factors at the level of financial statements can have a significant impact on all financial statements, the importance of inherent risk assessment, not only at the level of financial statements but also at the level of assertions, is unquestionable in planning further audit procedures, as it allows to plan a specific response to the risks associated with a particular assertion. For example, if there is a high risk associated with attributing costs to the reporting period (assertion - “*cut-off*”) and low risk associated with other assertions, the auditor will plan more detailed tests to testing the attribution of costs to the reporting period and less for the remaining assertions. Therefore, focusing too little on risk assessment at the level of account balances and transactions assertions may reduce audit efficiency (more time will be spent on excessive audit procedures if many assertions are subject to higher risks, even though higher risk relates to only one assertion) and quality (if the response to risks is planned not at assertion level, the auditor may not be able to obtain sufficient evidence related to specific assertion).

The author also emphasizes that in assessing inherent risk, the auditor should consider the impact of the *Covid-19* pandemic on the performance of the audited entity. The consequences of a pandemic may expose the entity to new risks, and an analysis of the impact of *Covid-19* on the entity's operations may provide additional information about the potential risks of material misstatement that the auditor did not previously notice.

The assessment of inherent risk is based on the auditor's professional judgment: the auditor analyzes and evaluates both quantitative and qualitative factors and considers whether they may lead to significant risk at the financial statement or assertion level. However, the assessment of inherent risk is subjective and in practice it is difficult to assess the accurate level of this risk (J. Mackevičius et al., 2018, 75). The difficulty of determining the level of inherent risk is related to the fact that it depends on factors, which are often difficult to assign to the appropriate level of risk. This problem was investigated by J. Mackevičius et al. (2018). The authors pointed out that the problem of quantification of inherent risk was insufficiently studied in the literature and proposed a methodology for quantification of inherent risk. The authors proposed to assess the inherent risk on the basis of a four-stage system: 1) in the first stage, factors that may affect the inherent risk are selected (the list can be formed by expert assessment); 2) then these factors are evaluated from a qualitative point of view, to which quantitative values are assigned according to the significance (weight) of each factor; 3) on the basis of the performed assessment of indicators, the maximum possible level of inherent risk is calculated; 4) finally, the actual level of inherent risk is determined. The use of this methodology allows for a more accurate calculation of the level of inherent risk and can reduce the subjectivity of the auditor's assessment. However, there are still difficulties in assessing inherent risk using this model, as the weight assigned to factors in the second stage is not stable for each client and may vary from industry to industry. Therefore, these weights should be reconsidered and justified in the audit of a particular company.

3.2. Control risk assessment

The steps of the control risk assessment are presented in Figure 2.



Source: compiled by the author based on A. D. Akresh (2010), C. C. Munteanu (2015), A. Voiculescu (2014).

Figure 2: Control risk assessment process

In order to assess control risk, the auditor must first obtain a sufficient understanding of the entity's internal control system (A. D. Akresh, 2010, 71). From the point of view of auditing the financial statements, the auditor should evaluate all five elements of control consistent with the COSO model (control environment; risk assessment; control activities; information and communication; and monitoring activities) because all of them are the basis for the organization's risk management and their proper formation and maintenance in the company allows to identify and prevent possible significant distortions in the financial statements in a timely manner. The author also emphasizes that the auditor needs to analyze these five components of the internal control system in order to meet the requirements of the auditing standards. Ž. Simonaitytė (2014, 84) also points out

that the most appropriate internal control system must consist of at least five elements and, based on the results of the research, indicates that Lithuanian auditors also assess these five elements of internal control when assessing control risk during the audit. Thus, in assessing control risk, the auditor should evaluate the entity's internal control system, which consists of control environment, risk assessment, control activities, information and communication and monitoring activities.

Based on this knowledge, the auditor performs an initial control risk assessment that includes evaluating whether the entity has properly designed and implemented controls system. During the initial control risk assessment, the auditor should satisfy that the entity has no material deficiencies in the design and implementation of controls, including identifying missing controls and properly verifying that controls have been implemented (A. D. Akresh, 2010, 71). Typically, these procedures include an inquiry based on prepared questionnaires or other practice tools, analysis of control schemes, review of documents, observation (C. C. Munteanu, 2014, 101). The preliminary assessment of control risk is high unless the auditor plans to perform tests of the effectiveness of controls that may reduce the risk of material misstatement at the assertion level (A. Voiculescu, 2014, 140; J. Mackevičius, 2005, 116; B. Ritchie et al., 2007, 46). The final assessment of control risk is determined by performing control tests on the operating effectiveness of internal controls in identifying or avoiding material misstatements in the financial statements (A. Voiculescu, 2014, 140; A. D. Akresh, 2010, 71). It should be emphasized that these procedures are performed only if the auditor has determined during the initial assessment that the control system is properly designed and implemented. Following this assessment, the auditor can determine whether the internal control system is effective.

However, even if an entity has an effective internal control system in place, due to factors associated with inherent internal control limitations, they provide only reasonable assurance that their objectives will be achieved (ISA 315, 2013). These factors may include making erroneous decisions, non-compliance with controls due to human error, or the nature of controls. J. Mackevičius (2005, 116) distinguished the following limitations: 1) management's view that the costs of implementing controls should be lower than the losses of possible errors; 2) management pays more attention to routine, ongoing operations and less to non-routine operations; 3) errors made by employee responsible for the control; 4) fraud is difficult to correct when management tends to override controls; 5) control systems must also be updated in the event of operational changes. This means that no matter how well implemented and applied the company's internal controls are, they can only reduce but not eliminate the risk of material misstatement.

The auditor should also consider the interdependence of inherent and control risks in the risk assessment. Management often responds to inherent risk by developing internal control systems that can prevent, detect and correct misstatements, therefore in many cases the inherent and control risks are closely related. For example, if the inherent risk is high, the entity needs tighter controls to avoid or detect and correct the misstatements, and as the inherent risk decreases, the need for control decreases (A. D. Akresh, 2010, 71). Therefore, in such situations, audit risk may be better assessed in the joint assessment. The results of an experiment conducted by B. Ritchie et al. (2007) showed that 70% of respondents incorrectly assigned inherent risk factors to control risk. Based on these results, the authors concluded that this failure to distinguish between inherent and control risk factors suggests that, in general, the components of these risks are considered to be interrelated. The results of a previous study by W. N. Dirsmith et al. (1991) also substantiated the interdependence between inherent and control risk: the authors point out that some of the factors used to assess inherent and control risk overlap. W. F. Messier et al. (2000) study results also showed that inherent and control risk assessments are interrelated. This dependence is also acknowledged by Lithuanian auditors, who point out that higher inherent risk requires more developed control systems, therefore inherent and control risks are related and affect each other (L. Eimanavičiūtė et al., 2014). Thus, these two risks are interdependent and, without acknowledging this, the risk of material misstatement may be assessed incorrectly (C. C. Munteanu, 2015, 101; R. B. Dusenbury et al., 2000, 105; W. F. Messier, 2000, 119).

3.3. Aspects of improving audit risk models in terms of the risk of material misstatement

Due to the complex risk assessment process, auditors face difficulties in planning the audit, therefore, the scientific literature suggests different risk assessment models that provide guidance for the audit risk assessment process. As the models widely used in practice are designed to assess audit risk, which includes not only the risk of material misstatement, but also detection risk, audit risk assessment models will be analyzed, distinguishing aspects related to the risk of material misstatement.

One of the first generally accepted audit risk models was published by ACIPA in 1983. To date, many audit practitioners are developing their own audit risk models based on the classical audit risk assessment model, also known as the conceptual model (S.V. Arzhenovskiy, 2019, 74). The most common audit risk models are the following:

1. Classical audit risk model
2. Expanded audit risk model
3. Beattie, Fearley and Brandt audit risk model
4. Activity-based audit risk model (ABREMA)

The audit risk model proposed by S. V. Arzhenovskiy et al. (2019) in recent years and the improved audit risk assessment model developed by Lithuanian authors R. Jankūnaitė et al. (2005) were also included in the analysis.

The benefits of these audit risk models are often emphasized in that they provide a better understanding of audit risk and its components and are useful in audit planning (refer to Appendix 1). However, the scientific literature (A. A. Arens et al., 1997; R. B. Dusenbury et al., 2000; W. F. Messier et al. 2000; T. B. Bell et al., 2005; M. Nelson et al., 2005; R. Jankūnaitė et al., 2005; J. D. Staniulienė et al., 2009; A. D. Akresh, 2010; L. Eimanavičiūtė et al., 2014; S.V. Arzhenovskiy, 2019) agrees on aspects of these models for improvement, which are summarized in Appendix 1. These limitations should be addressed through the development of an improved risk assessment model.

In addition to these aspects for improvement, the author also emphasizes that the existing models may not be sufficient for the risk assessment of specific risks: existing models provide guidelines for general risk assessment only, and the risk assessment model should clearly reflect the risk assessment process that may have a material effect on the financial statements and requires specific auditor attention due to a more complex assessment process or a higher level of uncertainty. These risks include the risk of fraud, the risk related to accounting estimates, and the risk of going concern:

- it is difficult to identify fraud by using traditional methods (R. Kanapickienė et al., 2004, 27), therefore the assessment of fraud must include specific risk assessment procedures directed at it. The auditing standards also recommend that, in the process of assessing fraud, the auditor consider the conditions under which fraud occurs, including incentive / pressure, motivation, and opportunity (M. F. Marchesi, 2013, 201). The benefits of including these factors in fraud risk assessment have also been substantiated by researchers (J. Fortvingler et al., 2016; T. J. Mock et al., 2017);

- revised ISA 540 (2018) specifies that the assessment of the inherent and control risks related to accounting estimates must be performed separately in order to assess the risks of misstatement associated with them at the assertion level. Accounting estimates are one of the most important risks in financial statements, which is widespread and can have a material effect on an entity's financial position and performance (A. Pinello et al., 2020, 23). However, auditors face difficulties in auditing accounting estimates (E. E. Griffith, 2014, 49) and the scientific literature does not suggest methods to assess the risk of material misstatement associated with accounting estimates (only general inherent risk assessment methods are proposed);

- going concern risk is associated with uncertainty and therefore requires specific auditor attention. Uncertainty about going concern risk relates to the assessment of future events and conditions that cause the auditor to be constrained in assessing the risk of material misstatement (ISA 200, 2009). The going concern risk assessment includes specific procedures aimed at identifying events and conditions that may indicate the entity's difficulty in continuing as a going concern and therefore, traditional methods may be also insufficient for going concern risk assessment.

Conclusions

The risk of material misstatement is the probability that the financial statements will be materially misstated due to the nature of the entity and its environment (inherent risk) and the possibility that the entity's internal controls are planned and implemented ineffectively and will not be able to identify and / or correct material misstatements (control risk). The level of inherent risk depends on factors caused by the company's internal (uncertainty in the valuation of financial statement items, complexity of calculations, unusual transactions, specifics of the company's activities, factors related to management characteristics, etc.) and external environment (economic-political, technological, regulatory factors). In order to avoid the influence of these factors and to reduce the probability that significant misstatements in the financial statements may occur, companies are implementing internal controls, effectiveness of which represent the control risk.

Although the purpose of the audit is to express an opinion on the accuracy of the company's financial statements, the auditor is not responsible for the prevention and detection of errors and fraud. International Standards on Auditing clearly define the responsibilities of the auditor and management and state that management is responsible for the accuracy of the financial statements. The auditor is responsible for assessing the risk and planning the appropriate response. Nevertheless, audit expectation gap remains between what auditors perceive as their responsibilities and what the society perceives as auditors' responsibilities.

In performing the risk assessment, the auditor must obtain a reasonable understanding of the entity and its environment and internal control system and, on that basis, decide on the level of risk of material misstatement. Risk assessment involves consideration of factors related to the entity's internal and external environment and should be performed at the level of the financial statements as a whole and of individual account balances and transactions assertions. The control risk assessment includes the auditor's assessment whether internal controls are in place and whether they are implemented and operating effectively. However, it is important that the auditor consider the relationship between inherent and control risks in making the risk assessment, because ignoring their interrelation may result in an incorrect decision about the level of risk of material misstatement.

Various audit risk models were proposed by researchers, however a number of aspects for improvement still exist. The author also emphasizes that the following aspects also need to be taken into account when considering improvements to existing models: 1) *risk assessment at the assertion level*: existing models should be improved by reflecting a clear process for identifying and assessing risks at the level of account balances and transactions assertion level; 2) *assessment of fraud, accounting estimates, going concern risks*: risk assessment model should reflect a separate process in assessing specific risks (fraud risk, account balances and transactions related to accounting estimates, and going concern risk), the complexity of which is also emphasized in the auditing standards.

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Appendix 1 Advantages and disadvantages of audit risk models

	Classical ARM		Expanded ARM	Beatie, Fearley and Brandt ARM	ABREMA	S.V. Arzhenovskiy et al. ARM	Improved ARM
Advantages	<ul style="list-style-type: none"> - helps to understand audit risk and its components; - allows the components of the audit risk to be expressed in relation to its other elements; - helps to understand the interrelationships between the components of audit risk; - effective in helping to determine the scope, nature and timing of key audit procedures. 	Advantages over classical ARM:	Provides a better understanding of audit risk.	Additional risks are included.	<p>Emphasizes the need for risk assessment at each stage of the audit.</p> <p>Points out that risk must be assessed not only at the level of financial statements but also at the level of assertions.</p>	<p>Additional risks are included.</p> <p>Points out that risk must be assessed not only at the level of financial statements but also at the level of assertions.</p> <p>A logical-probabilistic method for quantifying risk is proposed.</p>	Additional risks are included.
Disadvantages	- does not reflect the interdependence between inherent and control risks;		X	X	X	X	X
	- the exact method for calculating the level of audit risk components is not provided;		X	X	X		X
	- inherent and control risk assessments are subjective;		X	X	X	X	X
	- does not cover all risks that may arise during the audit;		X		X		
	- insufficient to assess the risk of fraud;		X	X	X		X
	- does not demonstrate that audit risk needs to be assessed not only at the level of the financial statements but also at the level of the assertions;		X	X			X
- does not include the need to review the risk assessment during the audit.		X	X			X	X
Additional disadvantages:			-	Does not provide a mathematical audit risk assessment formula.	<p>Indicates that all audit evidence is collected first, and only then is it evaluated to make further decisions, which is contrary to audit practice.</p> <p>Indicates that controls are performed first and then detailed tests are performed later. In practice, these tests are performed together (“dual-purpose” tests).</p>	-	Does not provide a mathematical audit risk assessment formula.

ARM – Audit Risk Model.

Source: compiled by the author.