

Kaunas University of Technology

School of Economics and Business

Measurement of Financial Reporting Quality in Listed Companies

Master's Final Degree Project

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Accounting and Auditing (6211LX037)

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Declaration of Academic Integrity

I confirm that the final project of mine, Ieva Gineityte, on the topic „Measurement of Financial Reporting Quality in Listed Companies“ is written completely by myself; all the provided data and research results are correct and have been obtained honestly. None of the parts of this thesis have been plagiarized from any printed, Internet-based or otherwise recorded sources. All direct and indirect quotations from external resources are indicated in the list of references. No monetary funds (unless required by Law) have been paid to anyone for any contribution to this project.

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Summary

Measuring the quality of financial reporting is problematic because there is no common concept of the quality of financial reporting and no single correct method to do so. The analysis found that the models proposed by the researchers have shortcomings and underestimate the quality of the financial reporting, as this is a broader concept than the proposed researches. The research found a lack of a systematic approach to the interaction between the quality of financial reporting and the impact of the auditor's opinion. The topic of the master's thesis is relevant because the quality of financial reporting in terms of qualitative characteristics and audit of financial reporting are interrelated and have a significant impact on information users and their economic decisions. The aim of master's final thesis was to examine the quality of financial reporting of listed companies. The objectives of master's final thesis were: to reveal the problems of the significance of the quality of financial reporting; to present and substantiate theoretical solutions for financial reporting quality measurement; to prepare a methodology for research on the quality of financial reporting; to perform an empirical research of the quality of financial reporting and test the hypotheses.

The research examines the reports of companies listed on the Nasdaq Baltic Stock Exchange in the period of 2014-2018. The quality of companies' financial reporting was examined in terms of 17 qualitative characteristics (4 relevance, 4 faithful representation, 4 understandability, 4 comparability and 1 timeliness) and the audit report's findings. The relationships were examined on the basis of 4 hypotheses aimed at examining the common Nasdaq Baltic market, as well as the Lithuanian, Latvian and Estonian markets whose companies are listed on the main list of the Nasdaq Baltic Stock Exchange.

The main results of the research were that the quality of financial reporting according to qualitative characteristics and audit findings improve in the period of 2014-2018. As well, it was found that the higher quality of the financial reporting in terms of qualitative characteristics leads to a better auditors' opinion in the audit report. A positive relationship was found between the qualitative characteristics and the auditors' opinion when assessing the financial reporting of companies listed on the Nasdaq Baltic Stock Exchange. When assessing the relationship between qualitative characteristics and audit findings according to the indicators of companies in each of the Baltic countries, it is proposed to use a larger sample of data in the future in order to achieve more accurate results.

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Santrauka

Išmatuoti finansinės atskaitomybės kokybę yra problemiška, nes nėra bendros finansinės atskaitomybės kokybės sampratos ir vieno teisingo metodo tai padaryti. Atlikus analizę buvo nustatyta, jog tyrėjų pasiūlyti modeliai turi trūkumų ir nepakankamai įvertina finansinės atskaitomybės kokybę, nes tai yra platesnė sąvoka nei siūlomi tyrimai. Atliekant tyrimą buvo įžvelgta, kad trūksta sistemingo požiūrio į finansinių ataskaitų kokybės ir auditoriaus nuomonės įtakos sąveiką. Magistro baigiamojo darbo tema yra aktuali, nes finansinės atskaitomybės kokybė pagal kokybines charakteristikas ir finansinių ataskaitų auditas yra susiję vienas su kitu ir daro didelę įtaką informacijos vartotojams ir jų ekonominiams sprendimams. Magistro baigiamojo darbo tikslas buvo ištirti biržoje kotiruojamų įmonių finansinės atskaitomybės kokybę. Magistro baigiamojo darbo uždaviniai buvo: atskleisti finansinės atskaitomybės kokybės reikšmingumo problemas; pateikti ir pagrįsti finansinės atskaitomybės kokybės vertinimo teorinius sprendimus; parengti finansinės atskaitomybės kokybės tyrimo metodiką; atlikti empirinį finansinės atskaitomybės kokybės tyrimą ir patikrinti hipotezes.

Darbe nagrinėtos Nasdaq Baltijos šalių vertybinių popierių biržoje kotiruojamų įmonių ataskaitos 2014-2018 metų laikotarpiu. Įmonių finansinių ataskaitų kokybė nagrinėta pagal 17 kokybinių charakteristikų (4 aktualumo, 4 ištikimo atstovavimo, 4 suprantamumo, 4 palyginamumo ir 1 svaikiškumo) ir auditorių pateikiamas išvadas audito ataskaitoje, taip pat buvo nustatyti ryšiai tarp finansinių ataskaitų kokybės vertinant pagal kokybines charakteristikas ir audito pateikiamų išvadų. Ryšiai buvo nagrinėjami pagal 4 išsikeltas hipotezes, kurios siekė išnagrinėti bendrą Nasdaq Baltijos šalių rinką, tiek Lietuvos, Latvijos ir Estijos rinkas, kurių įmonės kotiruojamos vertybinių popierių biržos pagrindiniame sąraše.

Pagrindiniai tyrimo rezultatai buvo tai, jog finansinių ataskaitų kokybė pagal kokybines charakteristikas, bei audito išvados gerėja 2014-2018 metų laikotarpiu. Taip pat buvo nustatyta, kad didesnė finansinės atskaitomybės kokybė pagal kokybines charakteristikas lemia geresnė audito pateikiamą išvadą audito ataskaitoje. Nustatytas teigiamas ryšys tarp kokybinių charakteristikų ir audito nuomonės vertinant Nasdaq Baltijos šalių vertybinių popierių biržoje kotiruojamų įmonių finansines ataskaitas. Vertinant kokybinių charakteristikų ir audito išvadų ryšį pagal kiekvienos Baltijos šalies įmonių rodiklius, ateityje siūloma naudoti didesnę duomenų imtį, siekiant tikslesnių rezultatų.

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Introduction

The information provided by the annual report is perhaps the most important one in depicting the condition of the company. This information is used by a wide range of interested users: owners, current or potential investors, controlling authorities and many other interested users. Given the important role played by financial reporting in the decision-making process of these entities, it is not surprising that there is a constant debate about the quality of financial reporting. Undoubtedly that the better quality of the financial reporting, the more accurate information given about the entity is given, and the fairer decisions that consumers could make based on that information. The issue of the quality of financial reporting is constantly being raised by researchers from different countries.

There is no generally accepted method for measuring the quality of financial reporting. Researchers either develop their own methods for measuring the quality of financial reporting (Beest et al., 2009; Notbahm et al., 2019), or use tools offered by other researchers (Wang et al., 2018; Lim et al., 2015). The choice of method depends on the researchers that measure quality of financial reporting. In some cases, researchers (Pivac et al., 2017; Wang et al., 2019) use a number of methods, since each proposed method of valuation of financial reporting usually focuses on one or two aspects and leaves aside some aspects that researchers consider important and only consider individual elements rather than the totality (Wang et al., 2018).

The empirical research conducted by various authors (Gajevszky, 2015; Herath and Albarqi, 2017) substantiates the claim that the transition to International Accounting Standards (IAS) improves the quality of financial reporting. The authors presented the results of the research, measuring the changes in the qualitative characteristics distinguished by the International Accounting Standards Board (IASB) as a result of the transition to International Accounting Standards. The Board distinguishes between two qualitative characteristics of large companies financial reporting - the relevance and reliability of financial information, and four complementary - comparability, understandability, fairness and timeliness.

In addition to the characteristics listed above, researchers use other methods to assess the quality of financial reporting. They claim that the quality of these reports is best assessed by value relevance (Zhai and Wang, 2016; Ball, 2006), earnings management (Brown et al., 2018; Ewert and Wagenhofer, 2019) accounting conservatism (Gajevszky, 2015; Herath and Albarqi, 2017) and other aspects. In addition, the authors identify the same tools for measuring the quality of financial reporting in different ways. Some call them models, other methods, or indicators, so there is a lack of unanimity on how to call those assessment tools.

This diverse and uneven choice of methods for measuring the quality of financial reporting shows that the quality of reports could be assessed in many different ways. However with such a wide variety of possible valuation methods, users of financial reporting information have the problem of what methods are most appropriate to choose. In the scientific literature, only single and fragmented attempts could be made to review the methods of measuring the quality of financial reporting. Usually limited to the analysis of only one method (Wang et al., 2018) or only a few methods are considered irrespective of others (Pivac et al., 2017).

Research gap - despite active scientific discussions on the quality of the company's financial reporting and the impact of the auditor's opinion, there is a lack of a systematic approach to the interaction between these two aspects.

Research question: does the auditor's opinion expressed in the audit report affect the quality of the company's financial reporting and how it could be measured?

Aim – to examine the quality of financial reporting of listed companies.

Objectives –

- to reveal the problems of the significance of the quality of financial reporting;
- to present and substantiate theoretical solutions for financial reporting quality measurement;
- to prepare a methodology for research on the quality of financial reporting;
- to perform an empirical research of the quality of financial reporting and test the hypotheses.

Research methods: analysis and systematization of scientific literature; data grouping, comparison, secondary data collection and analysis; graphical analysis; methods of mathematical statistics (correlation analysis).

1. Financial reporting quality

The purpose of this section is to review the theoretical aspects of the quality of financial reporting and the issues related to the assessment of the quality of financial reporting.

1.1. Concept of financial reporting quality

Aldamen et al., (2017) divides accounting into financial, management, tax, social, project, judicial and public. This work will focus on the financial reporting, which, according to Libby et al., (2002), provides information about the company's financial position to external users and is important for company investment decisions, creditworthiness and oversight of accounting compliance. Meanwhile, Ball (2006) emphasizes the importance of financial reporting quality: higher quality of financial reporting is crucial for small investors, as financial reports are often the only source of information for companies about investment decisions. As a result, they need a high quality of financial reporting to make the right decisions. For other users of financial reporting, their high quality is not important because they can often obtain information of interest from other sources.

In order to define the quality of financial reporting in this work, the definition of the financial reporting of the different authors is given firstly. It can be said that accounting includes the regular recording of economic and financial transactions and the processing of the data received so that they can be communicated to users of such information. The main purpose of financial reporting is to provide accurate and correct information that helps the company's consumers to make informed decisions (Kapelass et al, 2017).

Financial reports are the main tool to support users' investment and other business decisions. Financial statements that are not clear, brief and effective can have an adverse impact on the users' interpretation of the current financial status of a company (Hoque, 2017). Therefore, financial reporting should be qualitative, which means that it should be useful to the existing and potential investors, lenders and other creditors in making decisions about providing resources to the entity. Accounting quality is determined by the components of the financial statements:

- balance sheet - a financial statement showing all the assets, equity and liabilities of the enterprise at the last day of the reporting period;
- income statement - a financial statement showing all of the entity's revenue, expenses and operating results for the period - profit or loss;
- statement of changes in equity - a financial statement presenting the changes in the company's equity during the reporting period;
- cash flow statement - a financial statement showing the entity's cash and cash equivalents in the reporting period;
- notes - financial statement explaining the company balance sheet, profit (loss), cash flow and changes in equity, and additional material information that is not disclosed in other financial statements.

According to the Financial Accounting Standards Board (FASB), the International Accounting Standards Board (IASB), the Accounting Standard Board in the United Kingdom (ASB) [UK], and the Australia Accounting Standard Board (AASB), financial reporting quality represents the accuracy of the representation of the corporate assets, equity, liabilities, income, expenses and cash receipts and payments in the financial statements and its understandability to consumers.

There is no general definition in the scientific literature of financial reporting quality, this means that there are no universally accepted criteria and methods for assessing the quality of financial reporting. The authors in the scientific literature differently define the quality of financial reporting in the literature. Table 1 presents the opinions of different authors.

Table 1 Opinions of financial reporting quality (prepared by the author)

Author/year	Approaches
Achim er al., 2014	The quality of the financial reporting is financial information that is fully and transparently disclosed and does not confuse or mislead its users.
Biddle et al.,2009	Firms with higher financial reporting quality deviate less from predicted investment levels and show less sensitivity to macro-economic conditions.
Hadiyanto et al., 2017	The use of fair value measurement improves the quality of financial information.
Herath et al., 2017	Financial reporting quality is related to the faithfulness of the objectives and quality of disclosed information in a company’s financial reports.
Krismiaji et al., 2016	Companies with higher quality of financial reporting are likely to have a stable assessment of the expected level of investment and less sensitivity to macroeconomic conditions.
Legenzova, 2016	Emphasizes that accounting quality indicates the degree of usefulness of accounting information to represent the entity's financial performance and condition to help predict the entity's future performance and the entity's future value.
Martinez-Ferrero, 2014	The quality of the financial reporting is the level of reliability of the information generated in the financial accounting process.
Notbohm et al., 2019	When a firm’s managers have more conservative personal ideologies, financial reporting quality is higher
Qingliang et al., 2016	The quality of the financial reporting reflects the degree of fairness and certainty of the information provided by the financial reporting on the entity's financial position and performance.
Sunder, 2016	Financial reporting quality represents financial statements that provide accurate and fair information about the underlying financial position and economic performance of an entity.
Tang et al., 2016	The quality of financial reporting as being the manner in which financial statements provide truthful and real information related to the entities’ main performance and financial position.
Verdi, 2006	The quality of financial reporting as being the precision with which financial statements provide information related to an entity’s operations, mainly its cash flows, in order to inform its investors.

Many other authors define the concept of the quality of financial reporting in a similar way, distinguishing between two key elements - the rules for the financial reporting, and the benefits to users of reporting. In summary, the quality of the financial reporting is their compliance with the established reporting requirements and the suitability of the user to meet their needs and decisions. Further, the analysis of the literature examined has shown that the authors use synonyms in terms of accounting quality and quality of financial reporting. The authors, after analyzing the concept of accounting quality, essentially correspond to the concept of quality of financial reporting, because they distinguish the same elements - benefits and justice. In addition, the quality of the financial reporting is directly dependent on the quality of the accounting as it is not possible to prepare high quality of financial reporting without qualitative accounting information. It is therefore proposed to use the term 'quality of financial reporting'.

Although there is no uniform concept of 'quality of financial reporting information', both researchers and regulatory bodies speak of the importance of ensuring the quality of accounting information. The financial reporting information requirement is set out in both national and international legislation governing financial accounting and financial reporting. Sunder (2016) states that the purpose of financial reporting is information that assists many users of financial reporting in making economic decisions about an entity's financial position, financial performance and cash flows. The financial reports as well present the results of the management of the resources entrusted to management. High-quality financial reports bring economic benefits to the company itself (Bauwhede et al., 2015), because poor quality financial reports, a higher interest rate may apply. Equally, high quality financial reporting can have a negative impact on a company's reputation.

Based on the information in this chapter, a definition of the quality of financial reporting could be formulated as the quality of financial reporting is the accuracy of the presentation of an enterprise's assets, equity, liabilities, income, expenses, and cash inflows and outflows in its financial reporting, and its understandability to users.

1.2. Financial reporting quality characteristics

The quality of the financial reporting can be expressed in terms of their qualitative characteristics as shown in Figure 1. Figure 1 identifies two main qualitative characteristics of accounting: relevance and reliability. The first qualitative characteristic of financial reporting is the relevance defined by the International Financial Reporting Standards Board (IFRS, 2019) as being useful in making investment, lending or other decisions. As a result of this definition, qualitative financial reporting should not disclose information that would not help to make certain decisions, as this would increase the flow of information they provide, making it difficult to find useful and relevant information. However, different users of the financial reporting want different information, so each user group has important information and the other may be useless. As well, not all other useful information can be disclosed by companies. These circumstances make it difficult to objectively assess the quality of financial reporting in terms of relevance (Osasere et al., 2018; Agienohuwa et al., 2018).

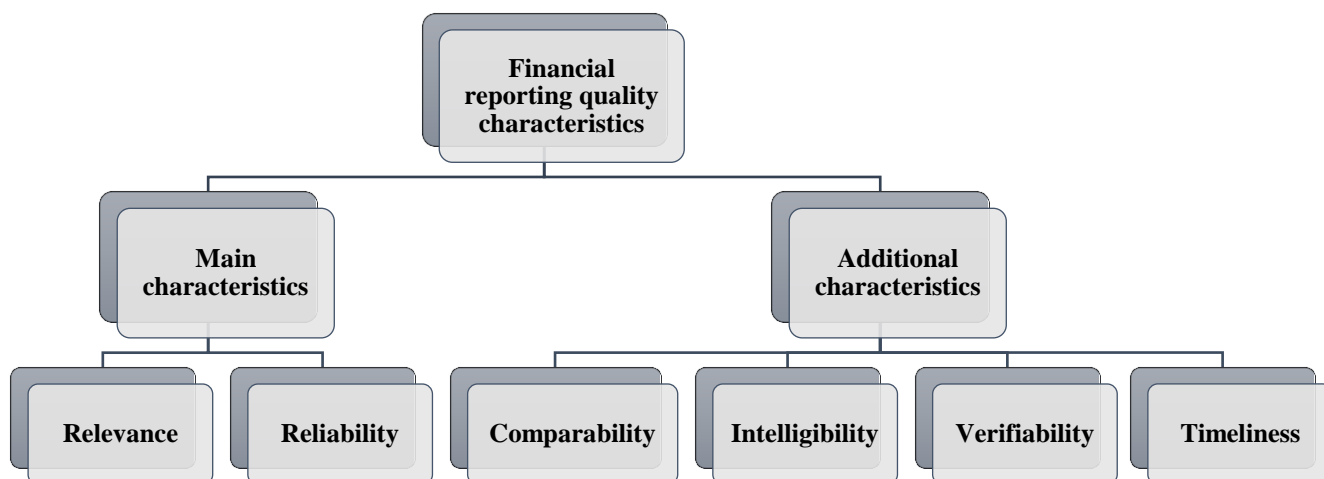


Fig. 1 Financial reporting quality characteristics (prepared by the author, based on IFRS 2019)

In addition to the above scheme (figure 1), the four additional qualitative characteristics described above are: comparability, intelligibility, verifiability, timeliness.

The additional qualitative characteristics of the financial reporting distinguished on the first IFRS website are comparability. The IASB defines it as a possibility for different financial reporting comparing each other, including comparisons between different companies and between financial reporting of different periods. This is an important qualitative characteristic as it would be difficult to choose from several different investment opportunities or to see trends in the financial situation of the company in the absence of comparability between different financial reports. One of the factors contributing to the quality of financial reporting in this respect is unified accounting standards, as this is a certain guarantee that different entities rely on the same principles in drawing up their financial reporting (Mahboub, 2007). However, it is not, and in this case, the use of different methods for certain areas, which may make it difficult to compare different financial reports. Harmonization of accounting methods is difficult as their choice is determined by the specificity of the activity, but companies should use the same methods for the reporting of different periods, which would allow comparing the different reports of the same company and indicating the methods they use to allow users of the financial reports to assess it by comparing different companies' financial reporting.

The second additional qualitative feature presented is the intelligibility that the IASB define as an opportunity for a sufficiently knowledgeable consumer to give sufficient time to understand its meaning. This characteristic is related to the importance of information, as some of it may be too difficult to understand the information of the user and thus become irrelevant (Osasere et al., 2018). However, measuring the quality of financial reporting in this respect is very difficult, as the assessment would be subjective: a different user with different knowledge and experience is aware of different

information, and each user's time for information analysis differs. As a result, companies need to make sure that the information they provide is comprehensible to as many users as possible

The third characteristic is verifiability, which has already been reviewed when writing about the reliability of financial reporting, so the latest qualitative characteristic of financial reporting - timeliness will be described below. Timeliness means that financial information must be provided in a timely manner and is closely related to the importance of the information, as some of the information may no longer be relevant after a certain period of time, although some information may remain relevant for a long period of time, for example if it is used to determine the timing of an entity's financial position (Agienuwa et al., 2018). Moreover, increasing the timeliness of information may reduce its accuracy, which would reduce the quality of such information, but many consumers prefer to receive slightly less accurate information sooner than extremely accurate later. As a result, companies need to find a balance sheet in their financial statements that ensures both the accuracy and timeliness of the information they contain.

The lack of a uniform definition of accounting quality makes the accounting quality assessment process more difficult. Financial reporting quality characteristics will be used by analyzing factors that determine financial reporting quality in further researches.

The issue of the reliability of the information presented in the financial statements is relevant both theoretically and practically (Potter et al., 2019). Different interest groups base their economic decisions on the quality and transparency of the financial results presented in the reporting sets. The process of quality assurance of financial information is assisted in this process by the opinion of independent auditors. There is always the likelihood that an audit will identify errors and misstatements of a different size and nature that may not always be decisive in the context of decision making. The auditor is not able to detect any errors or misstatements in the company's financial statements. For these reasons, the auditor's opinion is based on a certain level of materiality that is used throughout the audit process, from the planning of the work to the assessment of each potential misstatement. However, the opinion of the auditors does not always assess the reliability of the financial reporting.

The authors believe that additional preconditions are created to believe that financial reporting information is reliable. Thus, up-to-date and reliable financial reporting information is useful to its user as it enables them to make informed decisions. Contrary to the first qualitative characteristics, the reliability of the financial reporting is fairly objective, as different users can assess the financial statements on the basis of uniform criteria, which makes the reliability clause easier to implement than the relevance of the financial reporting.

Financial reporting quality characteristics classification differently by researchers. Most of researchers (Osasere et al., 2018; Agienhuwa et al., 2018; Potter et al., 2019; IFRS 2019) exclude 6 financial reporting quality characteristics: relevance, reliability, comparability, intelligibility, verifiability, timeliness, although classifying differently. Researches made based on these characteristics often by measuring financial reporting quality for listed companies.

1.3. The problem analysis of financial reporting quality measurement

As the processes of globalization expand and deepen, the geography of economic operators' activities is not limited to the area where they are located. Companies of all sizes have partnerships and other relationships with geographically remote companies. They do not have access to the usual information about the company's operations, financial position, cash flow, reputation of management. In such cases, financial statements are almost the only source of information about the company.

Financial statements are a key starting point for analysis when dealing with credit granting, contracting and raising capital in public markets. They are the foundation of the financial market (Jiang et al., 2019). Often, however, the financial statements of a company do not present the information as it really is, but the information that partners, customers, banks and other stakeholders would like to see. Otherwise, material sellers may require a prepayment, and buyers may start looking for more reliable manufacturers. Banks may not lend for restructuring, new projects and product development, partners do not want to cooperate with an untrustworthy company (Wu et al., 2019).

A company in a difficult situation takes all, often very risky, measures. This can include changing the management structure, introducing new technologies, developing better products, expanding the market. These measures do not always have the intended effect and the company goes bankrupt, with all the actors involved suffering even greater losses. Even when the company is in good shape, there are tendencies in the financial statements to present the situation a little better than it really is, and if the bad figures are not concealed, they try to explain them in a way that does not lead to negative judgments. There is as yet no universally accepted way to prevent manipulations and to make sure that financial statements are reliable.

The auditing of financial statements of companies whose ratios have not reached the specified values is optional. However, their financial reports are of interest to owners who are not involved in management, executives when they want to make sure that the financial statements are free from material error, partners, financial and government authorities, employees (Felix et al., 2018). Therefore, the financial statements of these companies must be audited in one way or another and their reliability verified.

One of the measures taken to ensure that the information disclosed about a company is correct is the audit of its financial statements. However, auditing as a mandatory quality assurance instrument is only applicable to public-interest entities that meet established criteria. For other companies, auditing is optional. These are small businesses and part of medium-sized businesses. Small and medium-sized enterprises account for a significant share of the country's gross domestic product. They employ a large proportion of the population. The credibility of small and medium-sized enterprises is of interest to public authorities, financial institutions, partners and the public. As a result, from time to time there is a debate on how to ensure the transparency of such companies and the reliability of their assets, capital, liabilities and performance. Auditing the financial statements would be redundant and costly for them. Reviewing financial statements would be more appropriate for these companies (Chang et al., 2019). Review is a limited assurance exercise, but in many cases, the reviewer's conclusion may meet the

information needs of users of financial statements. The feasibility and reliability of this service have been very poorly studied. And this may be one of the reasons why it is used infrequently.

Ensuring the quality of financial reporting information is one of the key tasks in financial accounting. Companies are now operating in an environment of ever increasing information flows and rapid change. Users of information need good quality information to make the right decisions. Quality not only affects customer satisfaction - it could directly impact an organization's reputation too. Most of the information that comes to the company relates to economic events that in one way or another affect the operations of the enterprise and must be accounted for by the enterprise. Financial information is sorted, grouped, analyzed and presented in the financial statements. Financial statements are a structured representation of an entity's financial position and financial performance (Rudzioniene et al., 2019). Reporting users often use reports to make their own decisions. Therefore, the information in the reports should not only be presented for easy measurement, but the information itself should not call into question its relevance, reliability, usefulness, in other words its quality. The financial reporting information is required by national and international regulations, which regulate financial accounting and preparation of financial statements

Other authors have done a lot of research on the issue of financial reporting quality, but all of them have contradictory results: Landsman et al. (2012), Ahmed et al. (2013) argue that International Accounting Standards lead to a higher quality of corporate financial statements than domestic accounting standards. Meanwhile, a study by Istrate (2015) and Capkun et al., (2015) suggests that the transition to international accounting standards has led to deterioration in the quality of financial reporting. There is also a third opinion: Christensen et al. (2015) argue that the quality of financial statements is determined by the interest of companies in achieving it and not by accounting standards. However, these studies have been conducted in different regions of the world, which may lead to different results. In addition, research by other authors focuses on the quality of U.S. corporate financial statements. Slightly fewer authors have examined the quality of financial reporting in EU and Southeast Asian companies.

According to Legenzova (2016) analysis of the scientific literature, it can be concluded that from the perspective of accounting harmonization, accounting quality research is incomplete and fragmentary. No commonly accepted definitions were found. Researchers associate accounting quality with the quality of financial reporting or with the qualitative characteristics of financial information. In addition, the accounting quality of most of the revised documents is analyzed in conjunction with the adoption of IFRS. Such documentation reflects an important stream of research, covering both accounting reconciliation and accounting quality, and provides an explanation of accounting and reporting choices for listed companies. However, from an EU perspective, accounting harmonization is a much broader process. Not only does this go hand in hand with the worldwide adoption of IFRS, but it also includes accounting and reporting reconciliation for small and medium-sized businesses and public sector organizations. Author did not find documentation related to the accounting quality of such organizations in previous researches. The financial accounting and reporting incentives of such entities are different from those of listed companies and other public-interest entities, and may also result in differences in the concept of accounting quality.

In order to assess whether the concept of accounting quality may differ from that of small and medium-sized enterprises and public sector organizations, author conducted semi-structured interviews with Lithuanian accounting market experts. Interviews with experts have shown that the definition of accounting quality as the quality of financial reporting is too narrow. Although experts could not provide a definition of accounting quality, most agreed that accounting quality should be defined not only by product quality (i.e. financial statements) but also by process quality (even if it may be difficult). Among the accounting quality assurance tools, the experts highlighted important aspects such as accountants' qualifications, management's approach to accounting and reporting, the quality of regulation (especially local accounting standards), the existence of quality measures and oversight of accounts.

The results of the study identified important areas for further investigation. The quality of the bookkeeping is said to be very poor, but in fact no prior research has been carried out in this area; therefore, such an assessment is neither supported nor speculative. The author of the article would like to suggest that in Lithuania and across the EU more detailed studies are needed that better assess the situation. In addition, some measures aimed at small and medium-sized enterprises and public sector organizations need to be adopted to improve the quality of accounting and financial reporting. Such measures should also be mandatory for exchange traded and other public interest entities in order to ensure a level playing field in the market. It is also proposed that studies on accounting reconciliation (including documentation on accounting quality) focus on small and medium-sized enterprises and public sector organizations, in particular given their importance to the EU economy.

In 2017, the Lithuanian Office of Audit, Accounting, Property Valuation and Insolvency Management published a survey of the quality of financial reporting. The Office conducted a study of the quality of financial reporting of 100 Lithuanian small, medium-size and large companies assessing the quality of financial reporting of these companies according to the accuracy and usefulness of information disclosed in accordance with the requirements of the Law on Corporate Financial Reporting and Business Accounting Standards. In its analysis of the financial reporting prepared by the companies for the financial year 2015, the Office has used a quality comparability approach to assess whether the reports comply with:

- Signing and approval of the financial reporting, annual report of article 19 of the Law on Corporate Financial Reporting of the Republic of Lithuania paragraph 1 on signing of financial reporting;
- The requirement of article 20 of the Law on Financial Statement of Enterprises of the Republic of Lithuania for the audit of financial reporting regarding the audit of annual financial statements;
- The composition of the financial statements of paragraph 22 of the Republic of Lithuania Law on Corporate Financial Reporting and the provisions of paragraph 24 of the condensed financial statements regarding the appropriate choice of financial statements;
- The provisions of business accounting standards and the provision of mandatory information in accordance with the requirements of business accounting standard 6 explanatory notes.

Researchers found out one of the factor that financial reporting information can be said to be of good quality if the user of the information understands what the person who processed the information has provided him or her. The information transmitted in the form of figures, graphics and all such information must be undistorted and clearly and correctly understood. In summary, financial statement disclosures are of high quality when the primary information is properly processed, timely and error-free, and information on the occurrence of the information is presented and substantiated. Unfortunately, this investigation largely revealed only financial reporting accordance with the requirements of the Law on Corporate Financial Reporting and Business Accounting Standards, but did not provide a clear answer as to whether the information is accurate and useful.

The Lithuanian Ministry of Finance (2017) conducted a survey of users of financial reporting in order to assess the need for improvement in the quality of financial reporting and possible practical measures to improve quality. 67 institutions responded to the questions.

The conclusions of the research were summarized as follows:

- (1) the quality of financial reporting is sufficient to determine the financial capacity of the companies involved in public procurement, to calculate statistical indicators, it means, that assessing the adequacy of the data but not their accuracy;
- (2) the quality of the financial reporting is inadequate, in particular the explanatory notes (incomplete, formal), such financial statements as are required (for example, to obtain a loan from the entity to file for bankruptcy, restructuring), it means, that the financial reporting are "refurbished" as required.

The Lithuanian Ministry of Finance (2017) systematized all the responses and also identified the reasons that determine the quality of financial reporting information:

1. The need for the competence and qualifications of those who prepare the financial reporting and the attitude of the managers themselves in presenting financial reporting;
2. Resources and management approach to the quality of a company's financial reporting.

Problem of financial reporting quality measuring according listed companies occur. The author of this thesis sees the problem of finding the most appropriate method for assessing the quality of financial reporting, and this work will seek to do so. In further will be trying to identify which method(s) under which circumstances and for which aims should be chosen.

2. Theoretical review of the quality of financial reporting

This section of the thesis will seek to identify the factors that determine the quality of financial reporting based on previous researches. In order to measure the quality of financial reporting, researchers develop various valuation models and methods, and use valuation indicators.

2.1. Financial reporting quality researches

Financial reporting quality researches were classified due to variety of researches. Researches were divided into three main groups:

- accounting standardization;
- audit role;
- other characteristics.

2.1.1. Accounting standardization

Financial reporting quality measurement researches according accounting standards were divided into two parts: International Financial Reporting Standards (IFRS) and International Public Sector Accounting Standards (IPSAS). Researches were categorized according two accounting standardization due to accounting standards have differences measuring public and private sector.

International Financial Reporting Standards (IFRS)

American researchers Barth et al., (2008) conducted a study examining the relationship between international accounting standards and financial reporting quality. The research compares the financial reporting quantity characteristics of firms that keep financial reporting according to international accounting standards and those that do not. Looking for an answer to the question, does the use of International Accounting Standards involve higher financial reporting quality and lower capital costs? In this study, financial reporting quality is measured by earnings management, timely loss recognition, and value relevance. For the purposes of income management, the following variables are calculated: the change in net income, the ratio of the change in net income to the change in cash flow, the correlation between cash flow and increase, and the frequency of low positive net income. Higher quality will occur when lower revenue management is required, i.e. the higher the deviation and ratio, the lower the negative correlation and the rarer the low positive income frequency. The measure of timely recognition of a loss is the incidence of significant negative net income after management of potentially significant circumstances. It is argued that the higher this frequency, the higher the quality of income. The book value of income and equities, as well as the return on capital are used to assess the certainty of the value. In summary, the study by American scientists suggests that it explores changes in accounting disclosures by comparing financial reporting of companies operating in different countries, whether prepared in accordance with international accounting standards or not. The calculations were made using publicly available accounting information, thus suggesting that they were viewed from an external user perspective.

Based on the analyzed study by Barth et al., (2008), researchers Morais and Curto (2008) investigated how adaptation of international accounting standards affects accounting quality in Portuguese companies. To measure accounting quality, income quality and value certainty measures were selected.

The current body of evidence in the empirical international accounting literature suggests that many country attributes appear to be individually associated with financial reporting results worldwide. Isidro et al., 2019 study highlights an incomplete picture of existing accounting literature, where the positive effects of a "single" country attribute or policy change on accounting or other economic outcomes are typically determined without recognizing or controlling the effects of many other known changes in policy or country attributes. Researchers have provided new evidence on the interdependence of many countries' characteristics previously associated with the quality of financial reporting. First, they show that the 21 changing countries attribute is synchronously strong in relation to the mandatory application of IFRS. Thus, while the adoption of IFRS "explains" the increased quality of reporting, this finding disappears when other country-changing data affecting the quality of reporting is included. Second, one key factor disintegrates many of the message quality indicators used in international literature. Finally, document that the four key country factors explain the individual explanations of the 72 candidate countries, explaining the report quality levels across countries.

Researchers identified key conceptual and empirical barriers in distinguishing the role of individual country attributes in explaining changes or levels of reporting and disclosure quality across countries, because:

- strong links between country characteristics show strong and certainly empirically interdependent characteristics of each country, institutions and policies;
- increased synchronization of many common factors and reporting quality outcomes is expected to occur due to endogenous policy adoption and implementation, thus worsening attribution assumptions;
- even if separate marginal effects exist, the small number of country observations and measurement problems limits the ability of empirical to statistically differentiate between the effects of changes or levels of individual country characteristics.

While some scholars have hinted at the existence of these problems, this study is the first to systematically document the main attribution problems encountered in empirical comparative country analyses. Although this empirical evidence is consistent with the hypothesis of misleading effects on reporting quality and the adoption of IFRS (specifically, the synchrony of reporting quality correlates), further research is needed to determine whether the findings include and generalize to other policy parameters. We further emphasize that the problem arises not from incorrect empirical measures (i.e., multiple regression and structural modelling versus qualitative comparative analysis), but from the more fundamental conceptual issue of (potentially inseparable) interdependencies and from the lack of data on the subject of the experiment.

Yurisandi et al., (2015) study aimed to assess whether the adoption of IFRS has improved the quality of financial reporting using a qualitative approach developed by the Nijmegen Economic Center (NiCE). In this study, a paired sample test is used to analyze the data. The quality of financial reporting before

IFRS is reflected in the period 2009-2010 and the quality of financial reporting after IFRS is reflected in 2012-2013. The authors concluded that the adoption of IFRS enhanced the quality of financial reporting. The result showed that the adoption of IFRS increased the qualitative characteristics of the level of relevance, understandability and comparability.

Mita et al., (2018) study aimed to investigate the indirect impact of adopting the International Financial Reporting Standard (IFRS) by increasing the ownership of foreign investors by improving comparability of financial statements. This study covered the period 2003-2002 of the quoted company in 18 countries, across Europe, Asia, Africa and Australia. Unlike previous studies, this study uses a continuous variable to measure the level of IFRS adoption that is measured at the country level. Countries that are not fully adopting, partially adopting, slightly delaying or making some changes to IFRS are included in this study. Studies have shown that the level of application of IFRS has a positive impact on comparability of financial statements. The level of application of IFRS indirectly increases the ownership rights of foreign investors through comparability of financial statements. These results are consistent with those of IFRS adoption who argue that adoption improves comparability of financial reporting, which in turn attracts greater cross-border investment.

Extensive literature has addressed the relevance of financial reporting. At this point it is noteworthy that the first researchers to write about it were Ball and Brown in 1968. They investigated the relationship between operating and accounting profits, prompting future research. Over the past years, and following the adoption of IAS, researchers have expanded the relevance literature by assessing the appropriateness of financial reporting prepared and prepared according to national accounting standards in accordance with IAS. Researches was divided into two main parts; the focus is on research using sample companies that voluntarily adopt IAS and those using sample companies for which the adoption of the standards in question is mandatory.

In the first category several research articles are distinguished. Hung et al., (2007) studied 80 German companies. Comparison of financial statements prepared in accordance with IAS/IFRS with financial statements prepared in accordance with German standards and using relative materiality does not reveal any changes in income and equity values. In addition, after assessing the eligibility using the incremental method, they found that the adjustments to the balance sheet data resulting from the adoption of the IAS were significant and the income adjustments were not. In contrast, Bartov et al., (2005) and Jermakowicz et al., (2007), identify the increased importance of profits for companies that voluntarily adopt IAS.

Recent studies on the second category examine the relevance of the financial statements of companies that have adopted IAS on a mandatory basis. Horton et al., (2007) investigated the appropriateness of the financial statements of companies in the United Kingdom, France, Italy and Spain using accounting adjustments arising from reconciliation reports. Their findings indicate that salary adjustments are becoming more important in the UK, France and Italy, whereas Spain does not. The same researchers in 2010 re-examined relevance only in the UK alone. Their findings again suggest that revenue-related adjustments contribute positively to the degree of fitness. Conversely, adjustments to the carrying amount of equity securities do not have a positive effect on the degree of materiality since the carrying value of equity was calculated in accordance with both IAS and UK applicable standards (Horton et al.,

2010). Similar results were achieved in the UK in 2008 by Capkun et al. The same researchers include eight European countries other than the UK in their article, re-establishing that income adjustments contribute to materiality, while not applying book value adjustments to equity. Christensen et al. 2009 also indicate the increased importance of income in the UK case. Wang et al. (2008) findings for Australian companies and 14 European countries show the same pattern in terms of earnings importance.

In summary, following the adoption of IFRS investors will be able to take timely and with greater ease more relevant information from the financial reports, which will aid them make better investment decisions.

International Public Sector Accounting Standards (IPSAS)

Wisdom et al., (2017) conducted a study that assessed the relationship International Public Sector Accounting Standard (IPSAS) between financial statement acceptance, reliability and integrity in Nigeria. The authors analyzed the findings of other researchers and systematized their findings, as well as the methods used to examine the impact of IPSAS on the quality of financial reporting. The authors used a survey method in their research. The results showed that the implementation of IPSAS will improve the quality, reliability and integrity of financial reporting by the state government administration in Nigeria. In addition, implementation of IPSAS-based standards has been noted to facilitate effective internal control and performance-based financial management in the Nigerian public sector. The implementation of IPSAS can reinforce the government's goal of providing much more efficient services. Responsibility is undoubtedly a hallmark of good governance. This research focuses on public sector accounting to ensure that Nigerian public sector employees, citizens and stakeholders operate in accordance with the principles of integrity, transparency and accountability, in the management of public funds. It was concluded that the implementation of IPSAS in the Nigerian Public Sector will have a positive impact on the quality, reliability and integrity of financial reporting and will promote a uniform financial reporting framework across the three levels of Nigerian government.

Central government financial reporting play a key role as a tool of public accountability in managing the state budget. However, the number of previous studies analyzing the determinants or efforts to improve the quality of financial reporting by central government is still limited. Ratmono et al., 2019, aims to analyze factors that are expected to affect the quality of financial reporting by central government entities. The development of research hypotheses were largely based on agency and institutional theories. Data were collected using a questionnaire for 171 respondents from financial management officers from 41 Indonesian Ministry/Central government entities. Partially least squares (SEM-PLS) structural equation modeling was used to test the hypotheses. The results show that compliance with public finance management rules, the quality of human resources, the reliability of internal control systems and the use of information technology have a positive impact on the quality of financial reporting by central governments.

The purpose of Mustapha et al., (2017) research was to conceptually examine the key factors influencing the quality of financial reporting in the context of the cash-basis International Public Sector Accounting Standards (IPSAS) in the Nigerian public sector. The research identifies factors that

include the quality of internal audit and staff competency as key organizational factors affecting the FRQ. Based on the review of existing literature and theoretical background, the researchers conceptually identified the quality of internal audit and staff competencies as potential organizational factors that could highlight higher quality accountability practices in the public sector in the context of accounting reform. The conceptual framework could contribute to the accounting literature by drawing conclusions from developed countries to support the growing emergence of International Accounting Standards (IASs) in the public sector in developing countries. In addition, this research provides direction for future empirical research aimed at verifying the FRQ conceptual exposure to the impact of internal audit quality and staff competency on the IPSAS of the cash-basis.

After exploring different authors' approaches to qualitative characteristics, their similarities and differences, could be conclude that most researchers analyze the qualitative characteristics set out in the International Financial Reporting Standards (IFRS) and International Public Sector Accounting Standards (IPSAS) conceptual frameworks. Rudzioniene et al., 2013 according researches made comparison of qualitative characteristics in private and public sector in International Accounting Standards (Table 2)

Table 2 Comparison of qualitative characteristics in private and public sectors in International Accounting Standards (Rudzioniene et al., 2013)

Qualitative characteristics	International Financial Reporting Standards (IFRS)	International Public Sector Accounting Standards
Primary characteristics	relevance; faithful representation	relevance; faithful representation; understandability; timeliness; comparability; verifiability
Secondary characteristics	comparability; verifiability; understandability; timeliness; benefit > costs	materiality; benefit > costs; balance between the qualitative characteristics

In conclusion, researches methods used the same, but interpretations and researches centers are different compared Financial Reporting Quality measurement according International Public Sector Accounting Standards (IPSAS) and International Financial Reporting Standards (IFRS). There is no difference in the qualitative characteristics of accounting information in the public or private sectors. Most researches has been carried out to assess the impact of accounting standards on the quality of financial reporting, but it has recently been argued that it depends not so much on accounting standards as on the initiative of the company itself, which is determined by various external factors.

2.1.2. Role of internal and external audit

Researchers' examining financial reporting quality measurement as well carries out investigations related to the activities of auditors both internal and external. This chapter was divided into two groups: researches related to internal audit role and researches related to external audit role.

Internal audit role

Internal auditors are considered a valuable source of information since they are more familiar with the company and its environment. Azzam et al., 2020 research aimed to identify the relationship between internal and external audits affecting the quality of firms' reports. To achieve the objectives of the study, a 30-item questionnaire was developed and sent to 312 external auditors and managed to collect 276 (88.5%) properly filled questionnaires. Descriptive statistics and multiple regressions were used to test the hypotheses of the study. The results show that Jordanian auditors perceived favorably the cooperation between internal and external auditors to enhance the quality of financial reporting. For instance, the results revealed positive and significant effect of objectivity in enhancing the level of cooperation between internal and external auditors in a way that increased the level of financial reporting quality. Moreover, the quality of financial reporting has been affected positively resulting in the positive effect of the technical competence of the internal audit's work and professional care. Finally, the cooperation between the two auditing teams was noticeable through the nature and scope dimension that, in turn, increased the quality of financial reporting. Based on these results, external auditors are highly recommended to rely on internal audit works which could lead to enhance financial reporting quality.

The purpose of Dashtbayaz et al., 2019 research was to investigate the relationship between the weakness of internal control and the quality of financial reporting and the impact of family ownership on the aforementioned relationships in Iranian listed companies. The authors included a sample of 139 firms from 2013 to 2017, of which 28 were family firms. Hypotheses were analyzed based on group data and comparisons of means. Studies have shown that weak internal control has a significant negative relationship with the quality of financial reporting. In other words, the weakness of internal control degrades the quality of financial reporting. In addition, the results showed that being in a family does not influence the aforementioned relationship.

Hasibuan et al. (2017) aimed to describe the impact of auditor quality on the quality of market and accounting financial statements and its impact on the economic consequences of the Indonesian Stock Exchange. The samples used were companies that were surveyed between 2011 and 2015. Manufacturing companies listed on the Indonesian Stock Exchange (IDX) were selected. There were a total of 100 samples. The sampling method used probability sampling using proportional stratified random sampling. The analytical model used in this study was SEM (structural equation modelling), where the statistical method was able to analyze a model of the relationship between latent constructs and indicators; one latent construct and another; as well as direct error measurement. SEM allows direct analysis of several dependent and independent variables. This study found that auditor quality has a significant impact on market-based and accounting-based financial statements. When it comes to auditors' quality variable due to its economic implications, it has a big impact. The interim effect of the

auditor quality variable on the economic consequences of using intervention variables based on market and accounting principles is significant; where the contribution of the quality of market and accounting financial statements is significantly greater than its direct impact.

Al-Shetwi et al., (2011) examined the impact of Internal Audit Function (IAF), an integral part of corporate governance structure, on the quality of financial reporting (FRQ) of all Saudi Arabia-listed companies in 2009, except banks. Secondary and primary information was collected through a coordinated survey and interviews with internal and external auditors. The findings show a weak relationship between IAF quality and FRQ. The findings show that listed companies only use the IAF to provide symbolic compliance with the rules of the Capital Market Authority (CMA). In the interest of better internal control and global recognition, the CMA needs to take more initiatives to increase the role of the IAF in Saudi firms. Given the environmental factors of emerging institutions, this study has added different insights into the IAF problem and its role in the FRQ Saudi Arabian oil economy.

Chang et al., (2019), using a unique Taiwan dataset, investigated the relationship between the quality of the internal audit function and internal control weaknesses in operations and compliance. The purpose of this research was to investigate whether the quality of the internal audit function is negatively associated to the likelihood of disclosure and compliance of internal control weaknesses in operations. Accordingly, authors regressing internal control weaknesses variables related to intermediate variables to determine the quality of the internal audit function, along with other control variables. Research showed that a larger internal audit team could improve internal audit performance, both in terms of operations and compliance, while the competence of the internal auditor is positively related to the effectiveness of internal control over compliance but not operations. According to the authors, this research contributes to the literature by revealing the factors that determine the achievement of operations and the goals of compliance. It also has a significant impact on stakeholders and practitioners, as control and compliance of a business could mutually influence its internal control over financial reporting and ultimately its business success.

Felix et al. (2019) investigated the internal and external benefits of associated with the correction significant weaknesses in internal control over financial reporting. Authors make two hypotheses: the external costs that are applied by investors and auditors to remediation firms after remediation do not differ based on the performance of the firm and the external costs that are applied by investors and auditors to remediation firms after remediation do not differ based on the information quality of the firm. Researchers have confirmed that companies that address significant deficiencies have higher performance and reporting quality than companies that have never reported deficiencies. These results suggest that the elimination of material deficiencies, a hallmark of an improved internal control system, is associated with internal benefits. Moreover, were found that remediating firms experience significantly lower audit fees and external costs than non-material weakness firms. However, these lower external costs depend on the level of activity of the company and the quality of the information. Research shows that remediation gives companies the opportunity to re-examine and correct their internal controls, which results in better performance and information quality. In addition, external stakeholders are not necessarily affected by the repair alone, but must consider tangible evidence of a revised internal control system before re-evaluating the entity's risk.

External audit role

Abdallah (2018) investigated, in an Egyptian context, the external auditor type (Big 4 vs. local) implications on reporting quality proxies by discretionary accruals and also examine whether auditor type impacts the market's pricing of discretionary accruals, where pricing is considered a proxy for the perceived discretionary accruals quality. The research sample period was 2012–2015, that is meant to be post the Egyptian revolution financial crisis, all Egyptian Stock Exchange listed firms (except banks and financial institutions) are considered. Discretionary accrual is estimated using modified Deshow and Dichev (2002) model. Ordinary least squares regression tests are used to investigate the external auditor type implications on DA level and the related EGX investors' pricing. The research findings highlight to regulators the need for effective monitoring of audit firms earnings management mitigation performance to help reinforce investor confidence in financial reporting quality.

Another research described is an article by Mello-E-Souza (2007) to clarify whether the choice of an audit firm influences the quality of financial reporting for companies in tax-oriented countries. The author said that in most countries, companies audited by one of the major audit companies (Ernst & Young, PWC, KPMG and Deloitte). Accounting quality was assessed on the basis of provisions, compliance with Brazilian accounting standards and timely recognition of losses. 312 Brazilian companies were selected for the survey, of which more than half were audited by one of the major audit companies. The study period is 1999-2000, and regression analysis was used for the study. Regression analysis was used to evaluate the auditor's choice of the company, which investigated their dependence on the audit firm, the size of the company, the size of provisions, leverage, the negative equity of the shareholders and the Stock Exchange on which the company is listed. Most of these indicators are dummy variables with 0 or 1 values. The results of the study showed that major audit firms tolerated more aggressive use of provisions than domestic ones, and in this respect the quality of accounting in Brazil is diminishing by selecting one of the major audit companies.

Chae et al., (2020) examined the impact of financial reporting opacity and audit quality on the risk of stock price fall using listed companies in Japan. This study is the first study to investigate the impact of financial reporting opacity on accident risk using a Japanese listed company. In addition, the impact of audit quality on accident risk was tested. High-level auditors could mitigate the risk of accidents by playing a role in the corporate governance mechanism to reduce agency costs. Researchers use a logistic regression and linear regression model to test whether financial statement opacity and audit quality affect the risk of crashes using the data of companies listed on the Japan Stock Exchange for fiscal years 2015 January through 2017 February. The results of this research show that the financial reporting opacity variable shows a positive association with accidents, which suggest that a company with less transparent financial reporting increases the risk of a collision. The results also show that Big4 audited companies have a lower risk of collision, which means that audit quality in Japan may be one of the factors that mitigate the risk of a collision. This research presents the impact of financial reporting and audit quality on external stakeholders seeking to avoid losses.

Although substantive reviews of the auditor's reporting requirements are taking place internationally, the impact of these reforms on the quality of financial reporting is unknown. Reid et al., (2019) has taken advantage of recent developments in UK auditors' reporting and noted that the new UK reporting

regime is associated with an improvement in the quality of financial reporting due to a significant decline in absolute abnormal accruals and a tendency to simply meet or overcome analyst forecasts increased payroll ratio. Regarding audit costs, the authors do not find significant changes in audit fees or audit delays associated with the implementation of the new reporting regime. In summary, the results of this study show that the new auditor reporting requirements are associated with a significant improvement in the quality of financial reporting without a significant increase in audit costs.

One more research reviewed is an article written by D. N. Ibrahim and S. F. Bin Saidin (2007), which examines what determines the quality of financial reporting. First, the quality of quarterly reports was investigated as compared to annual reports. Quarterly financial statements are not audited, therefore, it allows us to assess how auditing of firms affects the quality of their accounting. In this study, accounting quality was measured as the difference between the profit margin of a minority between quarterly and annual reports: if it did not differ, firms were considered to have high accounting quality. It was then investigated what distinguishes the audit of such companies. Companies were selected whose data in the financial statements were unchanged and their impact was investigated. The study used 261 corporate financial statements. The quality of accounting was then investigated as to the characteristics of the audit: the number of members of the audit committee, the frequency of meetings, and the size of the audit company (one of the majors or not) and others. The investigation has shown that the companies audited by the major audit firms have higher quality and quarterly reports, although they are not audited. This means that large auditing companies are subject to stricter scrutiny of their audited companies.

According analyzed researched could be summarized that internal and external auditor's involvement, helps to improve the quality of financial reporting. Poor internal control has been found to have a significant negative relationship with the quality of financial reporting (Dashtbayaz et al., 2019), and internal audit also has a significant impact on stakeholders and practitioners, as control and compliance with a business can mutually influence its internal control over financial reporting and ultimately business success (Chang et al., 2019). For investigations related to external audit, the auditor's report is the only instrument of communicating the audit results to third parties. Researchers assert regulators emphasize the need to effectively control the results of audit firms' earnings management mitigation to help build investor confidence in the quality of financial reporting (Abdallah, 2018), also researches provide an indication of the impact of financial reporting and audit quality on external stakeholders seeking to prevent losses (Chae et al., 2020).

2.1.3. Other characteristics for financial reporting quality

Some authors, who have analyzed the impact of the state environment on the quality of corporate reporting, are Ball et al., (2000), who studied the impact of the legal framework on the **timeliness and conservatism of corporate disclosure**. Their research volume was over 40 thousand companies 1985 - 1995 from different regions of the world, such as the US, Australia, Europe, etc. Then they performed a regression analysis that found that in countries using the Anglo-Saxon legal system, profits are compared less and also more conservatively. The study described has revealed that the country's legal system as well affects the quality of the accounting conducted by the company: the legal framework defines the general principles that are followed and applies to accounting too. If the laws of a country

allow you to behave freely, it is likely that the effectiveness of stricter accounting standards will be poor in improving the quality of company reporting.

A Martinez-Ferrero (2014) analysis addresses these social demands, by analyzing the relationship between the quality of financial information and that of corporate social responsibility information. To do so, he used three different measures of financial reporting quality: (i) **earnings management**; (ii) **accounting conservatism**; and (iii) **accruals quality**. The dependent variable is corporate social responsibility disclosure and it is measured by the level of standardized information provided in compliance with Global Reporting Initiative guidelines, described as an ordinal variable taking values between 0 and 3. He used a sample composed of 747 international listed non-financial companies from 25 countries, for the period between 2002 and 2010. Some dependence panel data models were proposed for the empirical analysis. The results confirm that the quality of the financial information contained in the financial statements positively affects the level of corporate social responsibility information quality. Researcher results support the existence of a positive relationship between the quality of financial information and voluntary sustainable disclosures.

Some researchers, such as Latridis et al., (2013), argue that the quality of corporate financial statements may also be affected by the economic environment: poor economic conditions often lead to a deterioration of financial position, which may induce them to manipulate financial statement figures. In their article, they investigated addiction between 2007 and 2009 financial crisis and accounting quality. In this study, the authors selected companies listed on Stock Exchanges in Greece, Italy, Spain, Portugal and Ireland, arguing that these countries were the hardest hit by the financial crisis of 2007-2009 and should therefore have the strongest impact on the quality of corporate accounting. They investigated the quality of accounting in two aspects: **profit management** and **value disclosure** in financial statements, and their annual GDP growth was used to determine the economic position of countries - the crisis period is defined as a negative value of this indicator. The scope of this study consisted of 789 non-financial companies in these countries and the analysis covered the period 2005-2011 years. Analysis was divided into pre-crisis, covering the years 2005-2008 and the crisis 2009-2011 period. This analysis revealed that the book value of the property has positive influence on the value of the company's shares, but its influence diminished during the crisis. The EPS also has a positive impact on equity values, but in some countries its influence increased during the crisis and in others it declined. Equity returns had a positive impact on pre-crisis in some countries and a negative impact on others. However, during the crisis, its influence was positive and increased in all countries analyzed. This study concludes that the financial crisis affects the quality of corporate accounting, but its impact varies from country to country, and that is why the country's environment is more important than other circumstances.

Pivac et al., (2017) developed an article to analyze and compare the quality of financial reporting disclosures provided by selected European countries (Croatia, Montenegro, Romania, Serbia and Slovenia) using a **cumulative disclosure quality index** and **comparative annual reporting** for listed companies in countries in transition. The multi-criteria PROMETHEE method was used. By combining existing ranking methodologies originating from different quantitative disciplines, it provides a method that provides an excellent basis for comparative analysis of the quality of financial reporting provided by listed companies, which is quite important for potential investors. The results obtained show that

Slovenian companies have the highest quality of disclosure and that the quality of disclosure in the supervised countries is very different. The findings of this article may be useful to potential investors, management, and other users of corporate disclosures, namely, regulators of financial reporting quality improvement.

Biddle et al., (2006) analyzed how financial reporting quality influences the efficiency of firms' equity investments. Hypotheses have been raised and confirmed that higher financial reporting quality enhances investment efficiency, and this effect is stronger in economies dominated by Stock Exchanges than in credit-dominated economies. The authors measure the quality of financial reporting by four components, three of which were proposed by Bhattacharya et al. (2003) and one by Bushman et al. (2004): **earnings aggressiveness; loss avoidance; earning smoothing; and timeliness**. USA and Japanese financial reporting were used in this study.

The study on the influence of financial reporting quality on the type of borrowing (Bharath et al., 2008) assesses financial reporting quality using a normal **operating accrual** metrics. Large fluctuations indicate unexpected deviations in income and current cash flows, which makes it difficult for creditors to reliably estimate future cash flows. A study in Brazil (Souza, 2007) also uses measures of increment to measure the quality of financial reporting, assesses whether general accounting principles are followed, and recognizes unanticipated losses in a timely manner (conservatism). As a measure of growth, this study opted for gross and working capital gains.

The aim of the Qingliang (2008) study is to propose a framework for measuring financial reporting quality at the country level. The study developed quality indicators for five aspects of the financial reporting framework: **loss avoidance ratio, accrual ratio, qualified audit report ratio, and non-Big 4 auditor ratio**. Based on these indicators, the study calculates a financial reporting quality score. Measuring system 2004 and 2005 Applicable in 8 Asian and Pacific jurisdictions. The results show that New Zealand and Australia are among the top financial reporting quality countries in the field, and the overall financial reporting quality across the group has been stable over two years.

Summarizing the researches, it could be concluded that quite different valuation methods are used to measure the quality of financial reporting. Researchers used methods are: timeliness, conservatism, value disclosure, cumulative disclosure quality index, comparative annual reporting, loss avoidance, earning management, accrual quality and qualified audit reports, operating accrual and non-Big4 auditor ratio.

In figure 2 shown financial reporting quality research classification according author opinion. Researches were classified in three main groups: researches related to accounting standardization, audit role and other characteristics. First group classified to sub-categories: International Financial Reporting Standards (IFRS), International Public Sector Accounting Standards (IPSAS). A number of studies have been conducted to assess the audit role in assessing the quality of financial reporting. The role of both internal and external auditing is distinguished as a research objective, so this research category was divided into two parts: internal audit and external audit. According analyzed researches most useful other characteristics by measuring financial reporting quality could be distinguished: timeliness (Ball et al., 2000; Biddle et al., 2006), conservatism (Martinez-Ferrero, 2014; Ball et al., 2000), loss

avoidance (Biddle et al., 2006; Qingliang 2008), earning management (Martinez-Ferrero, 2014; Latridis et al., 2013) and accrual quality (Martinez-Ferrero, 2014; Qingliang 2008).

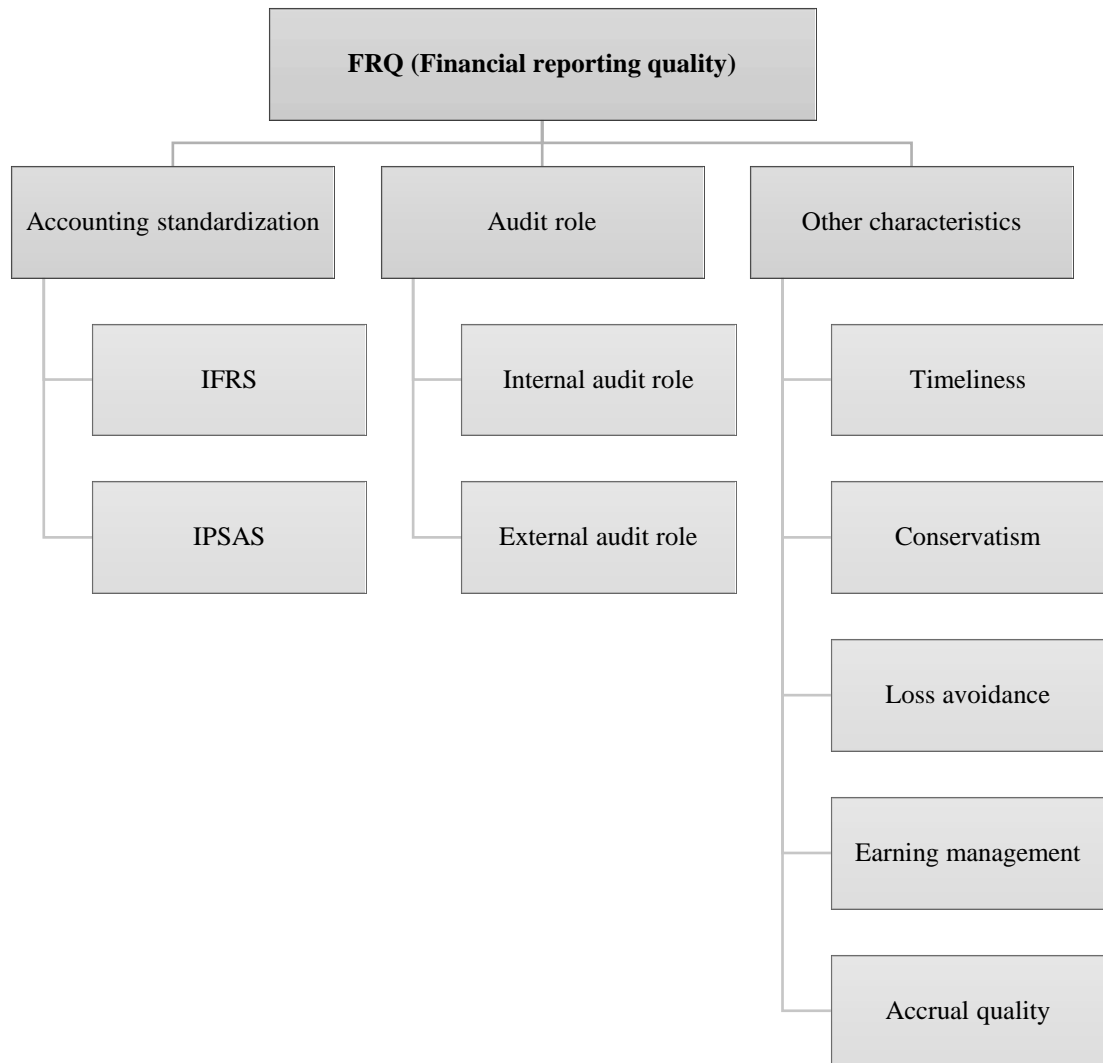


Fig. 2 Financial reporting quality research classification (prepared by the author)

The researches described in this section of the thesis confirmed that the quality of financial reporting is strongly dependent on the companies themselves: if they are interested in pursuing higher quality, quality of accounting increases. It is also found that financial reporting disclosures are of high quality when the primary information is properly processed, timely and error-free, and the occurrence of the information is presented and substantiated.

To sum up this chapter, it can be stated that studies by various authors show the influence of the country on corporate financial accounting: in countries with financial market based corporate financing system, companies have higher accounting quality. This is driven by the desire of investors who finance companies to obtain correct information about the financial position of companies. Companies that want to attract investors strive for quality accounting, which confirms that the quality of corporate accounting is primarily driven by the willingness of the companies themselves to do so. Large audit

firms also have a higher quality of financial reporting because they protect their reputation more closely and audit their clients more closely. Finally, the quality of financial statements may also depend on the macroeconomic situation, but its impact is not unequivocal: changes in the quality of financial statements vary between companies in different countries, suggesting that the political and legal environment is a more important factor care.

2.2. Financial reporting quality measurement models

To assess the quality of financial reporting, researchers use a variety of valuation indicators, develop valuation models, and propose methods. By previous chapter get to know that, researchers call the proposed financial reporting quality assessment instruments differently, not using a single term. In the author's opinion, the proposed financial reporting valuation instruments are best described as methods, as the instruments proposed by the researchers essentially describe the sequence of actions that contribute to the goal of measuring the quality of financial reporting. Various instruments of quality assessment of financial reporting are found in the analysed scientific literature. In most cases, the quality of financial reporting is suggested to be measured using qualitative characteristics (Osasere et al., 2018; Agienohuwa et al., 2018; Brown et al. 2018; Nakmahachalasint et al. 2018), value certainty (Muller, 2014; Palea, 2013; Kythreotis, 2014) and revenue management techniques (Lim et al., 2015; Wang et al., 2015; Martinez-Ferrero, 2014). Less frequently, researchers suggest evaluating accounting conservatism (Martinez-Ferrero, 2014) or timely recognition of losses (Sun, 2014), audit results (Qingliang et al. 2016; Sun, 2014), transparency of financial disclosures (Sun, 2014), quality of internal control (Cheng et al. 2013; Garrett et al. 2014), and the likelihood of errors (Cheng et al. 2013; Garrett et al. 2014) (Figure 3). Thus, there is as yet no generally accepted method for measuring the quality of financial reporting.

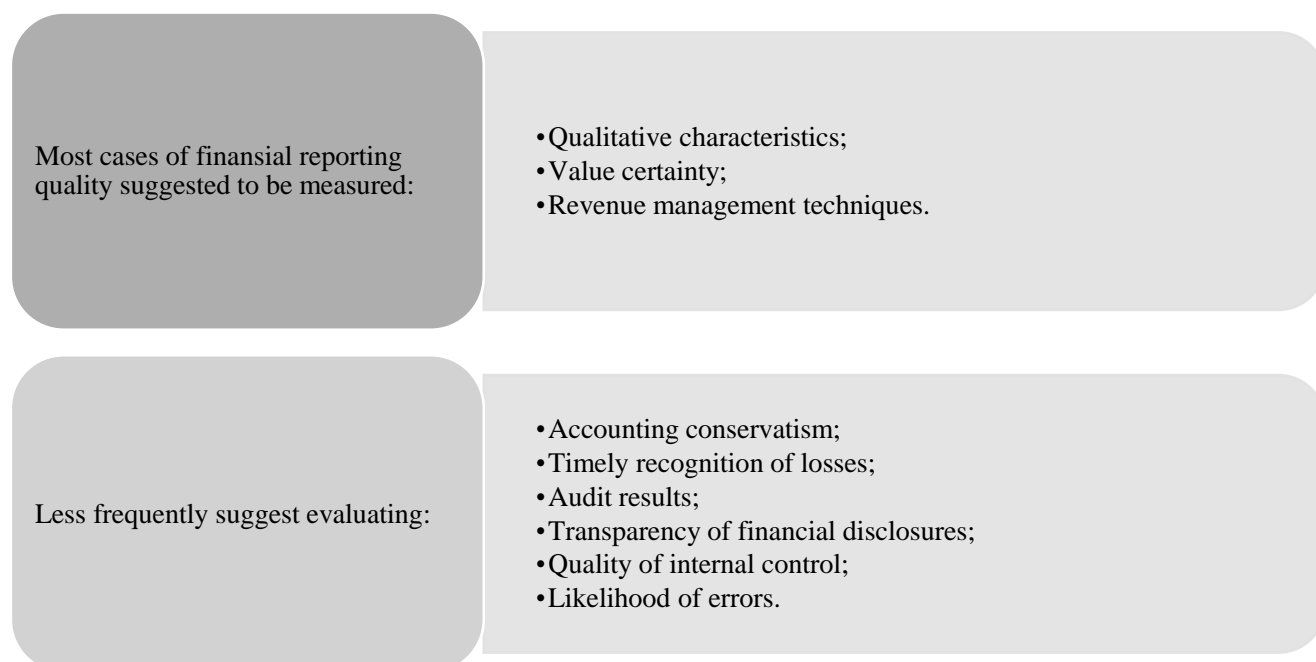


Fig. 3 Instruments of quality assessment of financial reporting (prepared by the author, based on researches in scientific literature)

The method for assessing qualitative characteristics (relevance, reliability, comparability, intelligibility, verifiability and timeliness) is the method most commonly used by researchers found in the scientific literature under review (Agienohuwa et al., 2018, Brown et al. 2018; Nakmahachalasint et al. 2018). It is most commonly used by researchers to assess how the quality of financial reporting has changed as a result of companies adopting International accounting standards and whether the information presented in the financial reporting meets the requirements of those standards.

The second method used by researchers is the income management method. In a broad sense, this approach measures the level of revenue management within an enterprise through the application of applicable rules and regulations. Researchers using this approach (Wang et al., 2015; Rodrigo, 2009; Martinez-Ferrero, 2014) argue that income is the most important element of financial reporting, so the level of income management is critical for investor decision-making, and the level of income management reflects quality. Corporate decision-makers can influence the level of revenue management in a company and manipulate the results. According to the authors' research they think that the higher the level of income management, the lower the quality of financial statements, because financial statements at a high level of income management distort the true position of the company. It is noteworthy that various authors analyse different elements of financial reporting using this method. For example, Lim et al., (2015), Biddle et al., (2009) evaluate two components - cash flow and provisions. Meanwhile, Chen et al. (2011) measure provisions, income, changes in receivables, while Barth et al., (2008) measure income, revenue, and money changes in flows. Proponents of this method of assessing the quality of financial reporting state that revenue management ratios are easily calculated using financial reporting information. According to critics of the method, this method only indirectly reflects the quality of financial reporting, because analyses only income.

Another fairly popular method in the researches is the value certainty method, which is commonly used to assess the quality of financial reporting of listed companies. With this approach, researchers measure how a company's financial reporting reflects the company's market value. Scientists are calculating or proposing modifications to various value indicators. For example, Kythreotis (2014) used four regression methods in his study by measures the relationship between: the market value of the shares and their book values, the market value of the shares and the assets and liabilities of the company, cash flows from operations and acquisitions and cash flow from typical activities. Researchers justify using value certainty as a method of evaluating the quality of financial reporting because the main users of financial information are investors and their decisions are reflected in the value of corporate shares (Muller, 2014). Palea (2013) argues that fair value accounting provides a higher degree of transparency in financial reporting, which in turn leads to a more accurate valuation of accounting information and a more accurate reflection of the company's value in the market. Therefore, according to the authors, the use of a value-based approach to assessing the quality of financial reporting is the most appropriate. However, this method has drawbacks. If the market is in a situation where market price data is incomplete or unavailable, the results of the method are also inaccurate or impossible to calculate. In addition, this approach, according to some researchers, is indirect and does not fully reflect all accounting quality characteristics as it focuses solely on the reliability of financial reporting.

Both the income management and value certainty approaches are commonly used by investigators to evaluate investment performance, business performance, and compliance of financial reporting with

accounting standards. Researchers suggest using a revenue management approach to measure trust within the company. The analysis of the scientific researchers showed that the methods of qualitative measurement, income management and value certainty were mostly used in research. More rarely have researchers used other methods that have been commonly used to supplement the most popular methods mentioned above. In table 3 compared most useful methods of quality measurement of financial reporting.

Table 3 Financial reporting quality assessment models (prepared by the author, based on researchers' opinion)

	Qualitative characteristics	Value certainty	Revenue management techniques
Model	Measuring the significance of financial reporting information for decision making in the study of qualitative characteristics;	Measure how a company's financial reporting reflects the company's market value;	Measures the level of revenue management within an enterprise through the application of applicable rules and regulations;
Advantages	The focus is on the quality of financial reporting; Direct measure of financial reporting quality.	Relatively easy to measure; Provide insight into the economic value of earnings figures.	Relatively easy to gather information data in order to measure revenue management.
Disadvantages	Difficult to operationalize causing measurement difficulties.	Research object - quality of retained earnings; indirect measurement of the quality of financial reporting.	Research object - quality of retained earnings; indirect measurement of the quality of financial reporting.
Authors	Agienohuwa et al., 2018, Brown et al. 2018; Nakmahachalasint et al. 2018	Muller, 2014; Palea, 2013; Kythreotis, 2014	Lim et al., 2015; Wang et al., 2015; Martinez-Ferrero, 2014

Martinez-Ferrero (2014) argues that the quality of financial reporting is reflected not only in revenue management and value certainty methods, but also in accounting conservatism. The author treats timely recognition of losses as conservative accounting. The author's choice of this method to measure the quality of financial statements is based on research from other researchers who argue that companies with higher levels of accounting conservatism achieve better results, which is proof of the quality of financial reporting. Revenue management, value certainty and accounting conservatism methods are used by the author to measure the efficiency of companies' operations. Less frequent researcher-reported auditor reporting information (Qingliang et al. 2016; Sun, 2014), internal probabilities of control and error validation (Cheng et al. 2013; Garrett et al. 2014), financial accounting and management transparency, and financial disclosure scale (Sun, 2014). Use of this information and opinion of the researchers could be evaluation of the reliability of the quality of financial reports. Validation of external auditors as an independent valuation method, validate when financial statements are reliable and useful (Qingliang et al. 2016). Quality internal control strategies and procedures can only be enhanced if the pastes are released from error, effective preventive measures that lead to misuse of financial statements. Cheng et al. (2013) confirmed in their study that weak average controls on small investments without direct financial reporting and investor information decisions.

Only in one research (Van Beest et al. 2009) has been able to detect an attempt to systematize the methods used by researchers to assess the quality of financial reporting. The authors distinguished four approaches: revenue management, fair value measurement, qualitative measurement, and specific elements of financial reporting. They also briefly revealed the pros and cons of each of the methods. Such systematization reflects only some of the methods identified in the scientific literature and does not provide information on the circumstances under which one method is used. Qingliang et al. (2016) only mentions possible methods for assessing the quality of financial statements, which fall into two categories: methods based on accounting information (eg income management) and methods based on market information (eg fair value, conservatism, timeliness).

By Kapellas et al., (2017) literature analyses. In the research was trying to relate financial reporting practices and investment decisions. Authors summarize that the effects of financial reporting practices on investment decisions are apparent based on significant empirical findings. First, cost of equity capital is affected and significantly lowered after IFRS adoption which enhanced financial reporting quality. Second, other indicators of financial reporting quality like earnings management and reporting quality are relevant to the investment choices, since distortion of accounting numbers drives firms value and determine investment decisions. Third, information asymmetry effect is significantly related as another mechanism helping investment decisions. Forth, combining previous evidence financial reporting quality improves investment efficiency but also is associated with lower over and under investment. Additional research evidence support, that cash flow sensitivity directly affects over and under investment. By the research was found that there is a relation among financial reporting, capital investments and stock market return. Existing literature has provided significant evidence. However, by the author's opinion there is a need for additional research so as incorporating additional factors and indicators to study in depth the economic consequences of financial reporting practices on investment decisions.

Krismiaji et al., (2016) made a research that has theoretical implication by proving and strengthening current theory which stated that the quality of financial reporting increases usefulness for decision making by users. The sample used in the research was firms listed at the Indonesian Stock Exchange. The sample was selected using the purposive sampling technique. The first requirement was that it is a public company listed at the Indonesian Stock Exchange from 2006 to 2015. The second was that these firms have publicly available information. In this research was confirmed that the quality of financial reporting increase investment choice in the core business. When include government mechanism see a moderating variable, it is also proved that governance aspect strengthen the association between financial reporting quality and capital investment choice. From practical aspect, research results enrich variables which are considered in making investment decision in the core business.

Summarizing the methods used to measure the quality of financial reporting in the scientific literature, it can be stated that researchers usually choose the methods of assessment depending on the purpose for which they measure the quality of financial reports. In all sources, researchers highlight the importance of the information presented in the financial statements and the benefits to the users of that information. Financial reporting information users are encouraged to use qualitative, revenue management, value certainty, and accounting conservatism methods to assess the financial statements of an enterprise of interest. Katutyte (2017) systematized the research conducted by scientists on the choice of financial

reporting quality assessment methods, depending on the purpose of financial reporting quality assessment, the results are summarized in Table 4.

Table 4 Selection of financial reporting quality measurement methods depending on the financial reporting quality assessment goal (Katutyte, 2017)

Methods for assessing the quality of financial reporting	Purpose of financial reporting quality evaluation				
	Investment efficiency	Financing attraction efficiency	Efficiency of the company activities	Efficiency of use of International Accounting Standards	Confidence
Evaluation of qualitative characteristics				X	
Method of estimating revenue management	X		X	X	X
Method of estimating value certainty	X		X	X	
Method of estimating accounting conservatism			X	X	
Method of evaluating audit results		X			
Method of assessing the transparency of financial disclosures	X	X	X		
Method for assessing the level of internal control quality		X			X
Method of estimating the probability of errors					X
The Government Transparency evaluation approach		X			

In cases where financial information is used to make investment decisions, researchers believe that it is best to use income management, value certainty, and financial disclosure transparency techniques. To assess the effectiveness of fundraising, investigators employ methods to measure audit results, transparency in financial disclosure, levels of internal control, and government transparency. It is suggested to use income management, value certainty, accounting conservatism, and financial disclosure transparency in cases of business performance measurement. To measure confidence in the company's financial statements, researchers propose methods for revenue management, internal control, and estimating the likelihood of error. As can be seen from the information in the 3 table, scientists go beyond one method and suggest the use of several methods to achieve the chosen objective of financial reporting quality assessment. According to Katutyte (2017), it is advisable to accept the suggestion of some scientists not to limit themselves to one method but to use several to eliminate potential shortcomings or fill gaps. The assurance that the financial reporting has been prepared in accordance with all International Accounting Standards is not sufficient to assess the quality of the financial reporting. Such certification reflects one of the two elements of the financial

reporting quality concept, which is compliance with the financial reporting requirements. It can be argued that compliance also partially meets the needs of the user of financial information, as the consumer uses financial reporting information that is qualitative in its decision-making. However, the use of additional methods for measuring the quality of financial reporting discloses additional information to the user, which increases the likelihood that he will make more informed decisions. According to Katutyte (2017), in order to reasonably justify the choice of valuation methods, it would be useful to identify and systematize the pros and cons of each of the methods presented in the table below to facilitate the user of financial statement information to decide which method to evaluate.

Research shows that none of the researchers' proposed method of measuring the quality of financial reporting comprehensively evaluates the quality of financial reporting. It is advisable to use several methods or their combination that would satisfy the user's needs as much as possible. This research will focus on qualitative characteristics and external audit opinion by measuring financial reporting quality.

2.3. Model for measuring the quality of financial reporting

Researchers described in the theoretical part of the master thesis measured the quality of financial reports of companies on the basis of qualitative characteristics. This section of the thesis will summarize in detail the methods used by other authors to measure qualitative characteristics and to investigate other aspects of the quality of financial reporting that allow to make research. Model for assessing the quality of financial reporting divided into two parts: theoretical assumptions and research hypotheses.

2.3.1. Theoretical assumptions

In order to construct a comprehensive tool for measuring the quality of financial reporting, the methodology for assessing the quality of financial reporting by several authors has been analysed (Van Beest et al., 2009; Braam et al, 2013; Herath et al., 2017). Braam et al., (2013) investigated whether it is possible to measure each of the reference and reinforcing qualitative attributes separately. They then used several elements used in previous studies to determine whether this could be achieved by assembling a set of existing measurement tools. Based on previous researches (mostly Agienohuwa et al, 2018), it was decided to assess the quality of financial reporting in five qualitative characteristics:

- Relevance;
- Faithful representation;
- Understandability;
- Comparability;
- Timeliness.

Relevance

Relevant information could change the decisions made by users. The relevance of information is influenced by its nature and significance (Osasere et al., 2018). The information provided is only useful if it relates to issues of greatest concern to consumers (Horton et al., 2007). Information could change decisions if it has predictive, confirmatory, or both (IFRS, 2019). Information about an economic

phenomenon has predictability if it is used as a contribution to the forecasting processes that capital providers (and other stakeholders) use to shape their expectations for the future. Many researchers have used the forecasting value as an opportunity for past earnings to predict future earnings (Horton et al., 2007; Yurisandi et al. 2015; Zhai and Wang 2016). Predictive value clearly refers to information about a firm's ability to generate future cash flows: "information about an economic phenomenon has an expected value if it is a value input to the forecasting processes that capital providers use to shape their future expectations" (IFRS, 2019). We consider the projected value to be the most important indicator of the utility of the solution, and we measure the expected value using four elements (table 5).

Table 5 Measurement items used to operationalize relevance characteristic (including the measurement scales) (prepared by the author, based on researches in scientific literature)

Question No.	Question	Operationalization
	<i>Relevance</i>	
R1	To what extent does the company use fair value instead of historical cost?	1 = Only historical cost; 2 = Mostly historical cost; 3 = Balance fair value/historical cost; 4 = Most fair value; 5 = Only fair value
R2	Does the risk section provide insights into the company's risk profile?	1 = No insights into risk profile; 2 = Limited insights into risk profile; 3 = Sufficient much insights into risk profile; 4 = Relatively much insights into risk profile; 5 = Very extensive insights into risk profile
R3	To what extent does the annual report disclose forward-looking information?	1 = No forward-looking information; 2 = Forward-looking information not an apart subsection; 3 = Apart subsection; 4 = Extensive predictions; 5 = Extensive predictions useful for making expectation
R4	To what extent are the intangible assets disclosed?	1= No disclosure; 2 = Limited disclosure; 3 = Sufficient disclosure; 4 = Very much disclosure; 5 = Very extensive disclosure

The first item measures how the firm uses fair value. The previous literature typically discusses the use of fair value versus historical cost in discussing the estimated value of financial reporting information (Barth et al., 2008; Van Beest et al., 2009; Rudzioniene et al., 2019; Yurisandi et al., 2015). It is often argued that fair value accounting provides more relevant information than historical cost because it reflects the present value of the asset rather than the purchase price (Osasere et al., 2018; Yurisandi et al., 2015). In addition, the FASB and the IASB are currently considering new standards that would allow more fair value accounting to increase the relevance of financial reporting information because they consider fair value to be one of the most important methods to increase materiality (Barth et al., 2008). [R1]. The second item indicates the extent to which annual risk information is disclosed.

Agienohuwa et al, (2018) refer to the addition of non-financial information to financial information based on expected value and to the knowledge that can be obtained about risk because it provides information about possible future scenarios for the firm [R2]. The third point assesses the extent to which the annual reports present a future perspective. A forward-looking report typically describes management's expectations for the company in the coming years. For capital providers and other users of the annual report, this information is relevant because management has access to private information to make a forecast that other stakeholders do not have (Bartov et al., 2005) [R3]. In addition to the estimated value, the confirmatory value as well contributes to the relevance of the financial reporting information. The information has a confirmatory value "if the intangible assets are disclosed in annual report". Agienohuwa et al, (2018) argue that if the information provided in the annual report provides comprehensive feedback to users of intangible asset, it will help them confirm or change their expectations [R4]. In particular, the financial statements of the annual report and the section "Notes to the financial statements" will be reviewed to determine the confirmatory value of the information. These sections usually provide corroborating information (Agienohuwa et al, 2018).

Faithful representation

Faithful representation is the second key qualitative quality. Annual reports must be complete, neutral and free from material misstatement in order to accurately represent the economic phenomena that the information is said to provide (IFRS, 2019). The economic phenomena presented in the annual report are "economic resources and liabilities and transactions and other events and circumstances that change them" (IFRS, 2019). Based on previous literature, faithfulness is measured using four elements (table 6) related to neutrality, completeness, freedom from material error, and verifiability (Dechow et al., 2002; Beest et al., 2009; Braam et al., 2013; Herath et al., 2017; Osasere et al., 2018; Agienohuwa et al., 2018). Braam et al., (2013) argues that it is difficult to measure faithful representation by directly evaluating only the annual report, because faithful representation requires information about the real economic phenomenon. However, according to Osasere et al., 2018, estimates and assumptions that exactly match the underlying economic constructs pursued by standards can reinforce loyal representation. Therefore, in the annual report, we focus on elements that increase the likelihood of information presented faithfully. These items do not always refer directly to IFRSs, but they do indirectly reflect the fair presentation of financial reporting prepared in accordance with certain accounting standards.

The first proxy refers to the problem "without bias". There could never be complete bias in the annual report, as the economic phenomena in the annual reports are often measured under conditions of uncertainty. The annual report includes a number of estimates and assumptions. Although a complete lack of bias cannot be achieved, a certain level of accuracy is required for financial reporting information to be useful in making decisions (IFRS, 2019). It is therefore important to examine the arguments presented for the different estimates and assumptions made in the annual report (Agienohuwa et al., 2018). If substantiated arguments are provided for the assumptions and estimates provided, they are likely to reflect economic phenomena without bias [F1]. In addition, reasonable and substantiated arguments about the accounting principles used increase the likelihood that the developers will fully understand the measurement method. This will reduce the potential for unintentional material errors in their financial reports (Braam et al., 2013; Agienohuwa et al., 2018). In

addition, when the chosen accounting principles are clearly described and justified, the likelihood of reaching a consensus and detecting misstatements is increased for the user and the auditor of the financial reporting [F2].

Table 6 Measurement items used to operationalize faithful representation characteristic (including the measurement scales) (prepared by the author, based on researches in scientific literature)

Question No.	Question	Operationalization
	Faithful representation	
F1	To what extent does the annual report clearly explain the assumptions and estimates made?	1 = Only described estimations; 2 = General explanation; 3 = Specific explanation of estimations; 4 = Specific explanation, formulas explained etc.; 5 = Comprehensive argumentation
F2	To what extent does the annual report clearly explain the choice of accounting principles?	1 = Changes not explained; 2 = Minimum explanation; 3 = Explained why; 4 = Explained why + consequences; 5 = Comprehensive explanation
F3	To what extent does the company, in the discussion of the annual results, highlight the positive and negative events in a balanced way?	1 = Negative events only mentioned in footnotes; 2 = Emphasize on positive events; 3 = Emphasize on positive events, but negative events are mentioned, no negative events occurred; 4 = Balance positive/negative events; 5 = Impact of positive/negative events is explained
F4	To what extent does the annual report provide detailed information on corporate governance issues?	1 = No description corporate governance; 2 = Information on corporate governance limited, not in apart subsection; 3 = Apart subsection; 4 = Extra attention paid to information concerning corporate governance; 5 = Comprehensive description of corporate governance

The third concept of fair representation, neutrality, is described as “the absence of bias to achieve a predetermined result or to encourage certain behavior. Neutral information does not change the color it conveys in order to influence behavior in a particular direction” (IFRS, 2019). As Agienohuwa et al., (2018) state, “neutrality is objectivity and balance”. Neutrality means the intention of the developer; the facilitator should try to present events objectively and not focus only on positive events without mentioning negative events [F3]. Finally, an increasingly important annual report related to loyal representation is a corporate governance statement. Corporate governance can be defined as the mechanisms by which a business enterprise is managed and controlled in the form of an organized limited liability corporation. Several researchers examine the links between financial reporting quality and corporate governance, internal control, revenue manipulation, and fraud, and find that poor

governance and internal control degrade the quality of financial reporting (Dechow et al., 2002; Beest et al., 2009; Braam et al., 2013; Herath et al., 2017). Clearly, corporate governance information adds value to capital providers. More specifically, corporate governance information increases the likelihood of information presented faithfully (Van Beest et al., 2009; Herath et al., 2017) [F4].

Understandability

The first improved qualitative feature, understandability, will increase when information is classified, described, and presented in a clear and concise manner. Understandability means when the quality of information allows consumers to understand their meaning (IFRS, 2019). Understandability is measured using four elements (table 7) that emphasize the transparency and clarity of the information presented in annual reports (Braam et al., 2013; Agienohuwa et al., 2018; Lobo et al., 2018; Rudzioniene et al., 2019; Notbahr et al., 2019; IFRS, 2019).

Table 7 Measurement items used to operationalize understandability characteristic (including the measurement scales) (prepared by the author, based on researches in scientific literature)

Question No.	Question	Operationalization
	<i>Understandability</i>	
U1	To what extent are the explanations of the balance sheet and profit and loss account clear?	1 = No explanation; 2 = Very short description, difficult to understand; 3 = Explanation that describes what happens; 4 = Terms are explained (which assumptions etc.); 5 = Everything that might be difficult to understand is explained
U2	Does the presence graphs and tables clarify the information presented?	1 = no graphs/tables; 2 = 1-2 graphs/tables; 3 = 3-5 graphs/tables; 4 = 6-10 graphs/tables; 5 = > 10 graphs/tables
U3	Does the use of language and technical judgement in the annual report is easy to follow?	1 = Much jargon (industry), not explained; 2 = Much jargon, minimal explanation; 3 = Jargon is explained in text/ glossary; 4 = Not much jargon, or well explained; 5 = No jargon, or extraordinary explanation
U4	What is the size of the glossary?	1 = No glossary; 2 = Less than 1 page; 3 = Approximately one page; 4 = 1-2 pages; 5 = > 2 pages

First, disclosure, especially explanations of the balance sheet and income statement, can be valuable in explaining and providing more information about payroll (Yurisandi et al. 2015). In particular, narrative explanations help to improve the understanding of information (IFRS, 2019; Osasere et al., 2018) [U1]. In addition, the presence of tables or graphical formats can improve comprehension by explaining relationships and ensuring conciseness (Agienohuwa et al., 2018; IFRS, 2019) [U2].

Moreover, if the author of the annual report combines easy-to-understand words and sentences, the reader will understand the content too (Notbahr et al., 2019). If technical jargon, such as industry jargon, is unavoidable, an explanation in the glossary can improve the understanding of the information [U3, U4].

Comparability

One more qualitative characteristic feature is comparability, which is “the quality of information that allows consumers to identify similarities and differences between two groups of economic phenomena” (IFRS, 2019). In other words, similar situations should be presented in the same way and different situations should be presented differently. Comparability is measured using four elements (table 8) that focus on consistency. Three items refer to the consistency in use of the same accounting policies and procedures in the firm from period to period (Yurisandi et al., 2015; Agienohuwa et al., 2018, Osasere et al., 2018; Mita et al., 2018;). One item is used to compare the comparability of firms over a period of time (Agienohuwa et al., 2018; Mita et al., 2018; Osasere et al., 2018; IFRS, 2019).

Table 8 Measurement items used to operationalize comparability characteristic (including the measurement scales) (prepared by the author, based on researches in scientific literature)

Question No.	Question	Operationalization
	Comparability	
C1	To what extent do the notes to revisions in accounting estimates and judgements explain the implications of the revision?	1 = Revision without notes; 2 = Revision with few notes; 3 = No revision/ clear notes; 4 = Clear notes + implications (past); 5 = Comprehensive notes
C2	To what extent do the notes to changes in accounting policies explain the implications of the change?	1 = Changes not explained; 2 = Minimum explanation; 3 = Explained why; 4 = Explained why + consequences; 5 = No changes or comprehensive explanation
C3	To what extent does the company provide comparison of current accounting period with previous accounting period?	1 = no comparison; 2 = only with previous year; 3 = with 5 years; 4 = 5 years + description of implications; 5 = 10 years + description of implications
C4	To what the company does presents financial index numbers and ratios in the annual report?	1 = no ratios; 2 = 1-2 ratios; 3 = 3-5 ratios; 4 = 6-10 ratios; 5 = > 10 ratios

Comparability includes consistency. “Consistency refers to the application of the same accounting principles and procedures to an entity from period to period or in a single period across entities” (IFRS, 2019). Companies should strive for comparability through consistency. Agienohuwa et al., (2018)

operationally implement consistency based on overcoming change and uncertainty. As a result of new information, rules or regulations, companies typically change their estimates, decisions and accounting policies. For example, if there is new information that prompts a review of the expected life of a particular asset, it may change the estimate. In terms of consistency, it is important that these firms explain how these changes affect previous results [C1, C2]. Additionally, as consistency means that the same accounting procedures are used each year, data for this year should be comparable with data for previous years (IFRS, 2019). When a company provides an overview comparing the results of different years, even when there have been no changes in estimates, judgments or accounting policies, this will improve the comparability of the financial reporting information [C3]. Comparison means not only that one company uses accounting procedures consistently, but also means comparability between different companies (IFRS, 2019). Ratios and index numbers can be useful in comparing the performance of firms [C4].

Timeliness

The last improving qualitative characteristic is timeliness. “Timeliness means having information for decision makers until it loses the ability to influence decisions” (IFRS, 2019). Timeliness refers to the time required to disclose information and is related to the usefulness of the decisions in general (Van Beest et al., 2009; Qingliang et al. 2016; IFRS, 2019). When checking the quality of information in the annual reports, timeliness is measured using the natural logarithm of the days counted from the end of the year to the calculation of the auditor's report signature at the end of the year [T1]. Based on the natural logarithm of that number of days, each company received a score of 1 to 5 (table 9)

Table 9 Measurement item used to operationalize timeliness characteristic (including the measurement scales) (prepared by the author, based on researches in scientific literature)

Question No.	Question	Operationalization
	<i>Timeliness</i>	
T1	How many days did it take for auditor to sign the auditor's report after the financial year end?	Natural logarithm of the amount of days Ln(T1) (release date audit report – financial year-end date); 1=1-1,99; 2=2-2,99; 3=3-3,99; 4=4-4,99; 5=5-5,99

Tables 5-9 present the 17 measured elements used to examine the quality of financial reporting based on qualitative characteristics. The tables as well include measurement scales used to estimate the value of individual items. Quality measures to ensure the internal validity of these elements are based on the analyzed literature (Van Beest et al., 2009). To calculate these indices, the scores of the individual elements are summed according to the qualitative characteristics. The result of this process is from 1 to 5 according to all qualitative characteristics: 1 indicates a poor score and a result of 5 indicates mastery.

Assessing the role of the external audit involves a report by an unqualified auditor. Various researchers have examined the impact of audits and auditors' reports on the economic value of a firm (Qingliang et

al., 2016; Sun, 2014; Potter et al., 2019). These investigators concluded that the auditors' report adds value to the financial reporting information by providing reasonable assurance that the annual report accurately reflects economic phenomena. Qingliang et al., (2016) even argue that an unqualified audit report is a prerequisite for perceiving financial reporting information as reliable or accurately reflected. Based on possible external auditors' opinion each company received a score of 1 to 5 (figure 4)

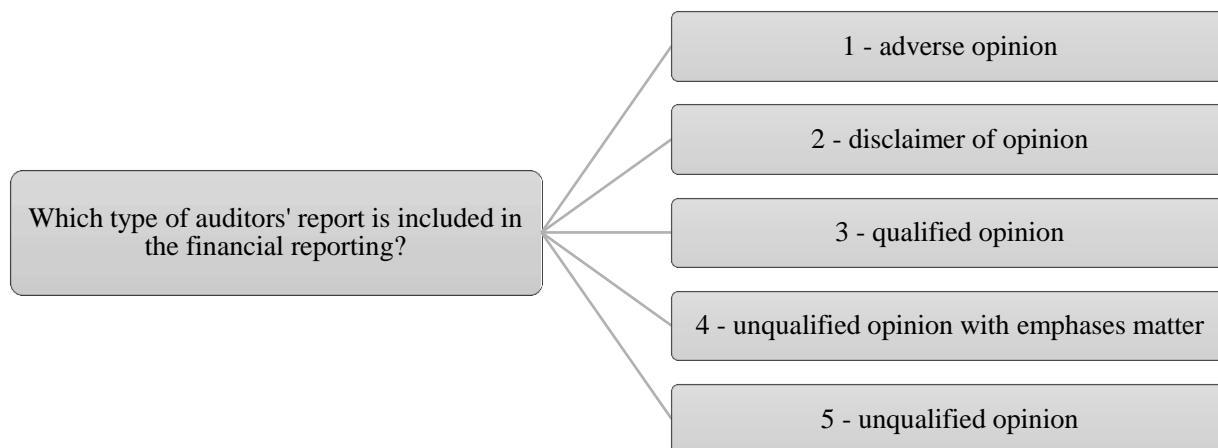


Fig. 4 External auditors' opinion measurement indicator including the measurement scale (prepared by the author, based on researches in scientific literature)

The quality of financial reporting will be measured according to 17 qualitative characteristics. The role of external auditors in measuring the quality of financial reporting will be examined against a one indicator.

2.3.2. Research hypotheses

This section of the thesis will formulate hypotheses that the study will seek to confirm or disprove. As well it will set out the tasks that the research will need to accomplish in order to meet the objective outlined above.

Summarizing the theoretical aspects of financial reporting quality factors and audit significance, it could be stated that the scientific literature emphasizes the mutual interaction between qualitative characteristics and auditors' opinion, and the overall impact on stakeholders. Researchers assume that the management of the company will take some measures to improve the quality of its financial reporting in the event of a "poorer" audit finding compared to the previous period (Qingliang et al., 2016; Potter et al., 2019). Because there are several types of auditor opinions, it is assumed that the auditor's "worse" and "better" opinions will have a different impact on the quality of the entity's financial reporting. Hypothesis is raised based on the research conducted:

H₁: A higher score on the quality of financial reporting in terms of qualitative characteristics is correlated with a type of auditor's opinion for companies listed in Nasdaq Baltic.

The type of auditor's opinion was given a score from 1 to 5 (figure 4). The better auditor's opinion, the higher score the company receives. Assessing the quality of financial reporting and the auditor's opinion in points, the relationship between these two indicators could be established.

As the listed companies cover three Baltic countries, the aim will be to test the hypothesis by each country as well: Lithuanian, Latvian and Estonian.

H_{1a}: A higher score on the quality of financial reporting in terms of qualitative characteristics is correlated with a type of auditor's opinion for Lithuanian companies listed in Nasdaq Baltic.

H_{1b}: A higher score on the quality of financial reporting in terms of qualitative characteristics is correlated with a type of auditor's opinion for Latvian companies listed in Nasdaq Baltic.

H_{1c}: A higher score on the quality of financial reporting in terms of qualitative characteristics is correlated with a type of auditor's opinion for Estonian companies listed in Nasdaq Baltic.

The novelty of this model is the measurement of the relationship between the qualitative characteristics and the opinions of the external auditors. No researches were found measuring the relationship between qualitative characteristics and external auditors' opinion.

After analyzing the key qualitative indicators, the influence of the auditors' opinion and formulating hypotheses, the next section will present the methodology for measuring the quality of financial reporting.

3. Financial reporting quality measurement methodology

Taking into account the analysis of the scientific literature performed in the theoretical part of the master thesis, this part presents the methodology of financial reporting quality assessment and relationship analyzes.

Empirical purpose: is to measure the quality of financial reporting based on qualitative characteristics and type auditors' opinion of companies listed in Nasdaq Baltic Stock Exchange.

During the research of the investigation, the quality of financial reporting will be judged solely on the qualitative characteristics and the type of auditor's opinion. In order to fulfil the aim of the empirical research, research hypotheses are raised, which will be confirmed or denied by applying statistical research methods to the selected data.

Research objectives:

1. Measure the quality of financial reporting of under qualitative characteristics;
2. Measure the type of auditor's opinion presented in the audit report;
3. Evaluate the relationship between the quality of financial reporting in terms of qualitative characteristics and the type of auditor's opinion.

Research object: financial reporting and audit findings from the companies listed on the Nasdaq Baltic Stock Exchange website (OMX Baltic main list market) for the years 2014-2018.

Research sample: The research population is 34 companies listed on the Nasdaq Baltic main list (Nasdaq Baltic). The sample selection was informed by two factors. First requirement was that the published financial reports must be available on the Nasdaq Stock Exchange website for 2014-2018 financial years. Second requirement was that these firms have publicly available information. During the period of the research, only a part of the companies had submitted financial reports for 2019, therefore this year was not selected for the research. Furthermore one company was removed from the list of respondents because it did not provide annual reports for the period considered.

Research process: The research process consisted of 3 steps:

1 step: to assess the quality of the financial reporting of the chosen companies by applying the method of qualitative characteristics widely used in research. Financial reporting quality operationalized by 17 measurement items under qualitative characteristics: relevance (R) – 4 items, faithful representation (F) – 4 items, understandability (U) – 4 items, comparability (C) – 4 items, timeliness (T) – 1 item. The measurement criteria for each characteristic are given in table 5-9.

2 step: to rank the auditor's opinions from the best to the worst in the audit findings of the companies involved in the investigation. The measurement of the auditor's' opinion is based on one criteria, presented in figure 4.

3 step: to assess the relationship between the quality of companies' financial reporting and the auditor's opinion for testing hypotheses using correlation analysis. The main purpose of this stage is to investigate the interdependence of the auditor's opinion and the quality of the financial reporting, to find out the trends of this relationship, the strength of the relationship.

In correlation analysis, the strength of the statistical relationship between the observed variables is expressed by a coefficient. Various correlation coefficients are used to assess the strength of the connection. Based on the size of the correlation coefficient, conclusions are made about the strength of the correlation relationship. There are many correlation coefficients. Their choice depends on the distributions of the variables being analyzed, the forms of relationships being assessed, and so on (Evans, 1996). Correlation shows the direction of the relationship - as the value of one variable increases, the value of another variable may increase or decrease. Correlation coefficients acquire values from -1 to 1. Positive value - direct correlation, negative value - reverses correlation. The closer the value is to -1 or 1, the stronger the dependence between the (see Table 10).

Table 10 Correlation coefficient values (Evans, 1996)

Scale of correlation coefficient values										
Very strong negative	Strong negative	Average negative	Weak negative	Very weak negative	No connection	Very weak positive	Weak positive	Average positive	Strong positive	Very strong positive
-1	from -1 to -0.7	from -0.7 to -0.5	from -0.5 to -0.2	from -0.2 to 0	0	from 0 to 0.2	from 0.2 to 0.5	from 0.5 to 0.7	from 0.7 to 1	+1

Based on the research conducted by Evans (1996), will be calculated the Pearson correlation coefficient. The Pearson correlation coefficient estimates the strength of the linear relationship. It can be used when the X and Y distributions of the observed random variables are normal (values are measured on a scale of intervals or ratios).

Processing of research results. MICROSOFT EXCEL 2010 is used to systematize, analyze research data. The results of the data analysis are presented in tables, graphs and charts. Descriptive statistics (averages, percentages, minimum and maximum values ant etc.) are used to process research data. The relationship between qualitative characteristics and the type of auditors' opinions is examined by correlation analysis.

For a better understanding of the research, figure 5 presents a systematic scheme for measuring the quality of financial reporting.

Where:

- R (R1; R2; R2; R4) – relevance characteristics;
- F (F1; F2; F3; F4) – faithful representation characteristics;
- U (U1; U2; U3; U4) – understandability characteristics;
- C (C1; C2; C3 C4) – comparability characteristics;

- T (T1) – timeliness characteristic;
- H₁; H_{1A}; H_{1B}; H_{1C} – research hypotheses.

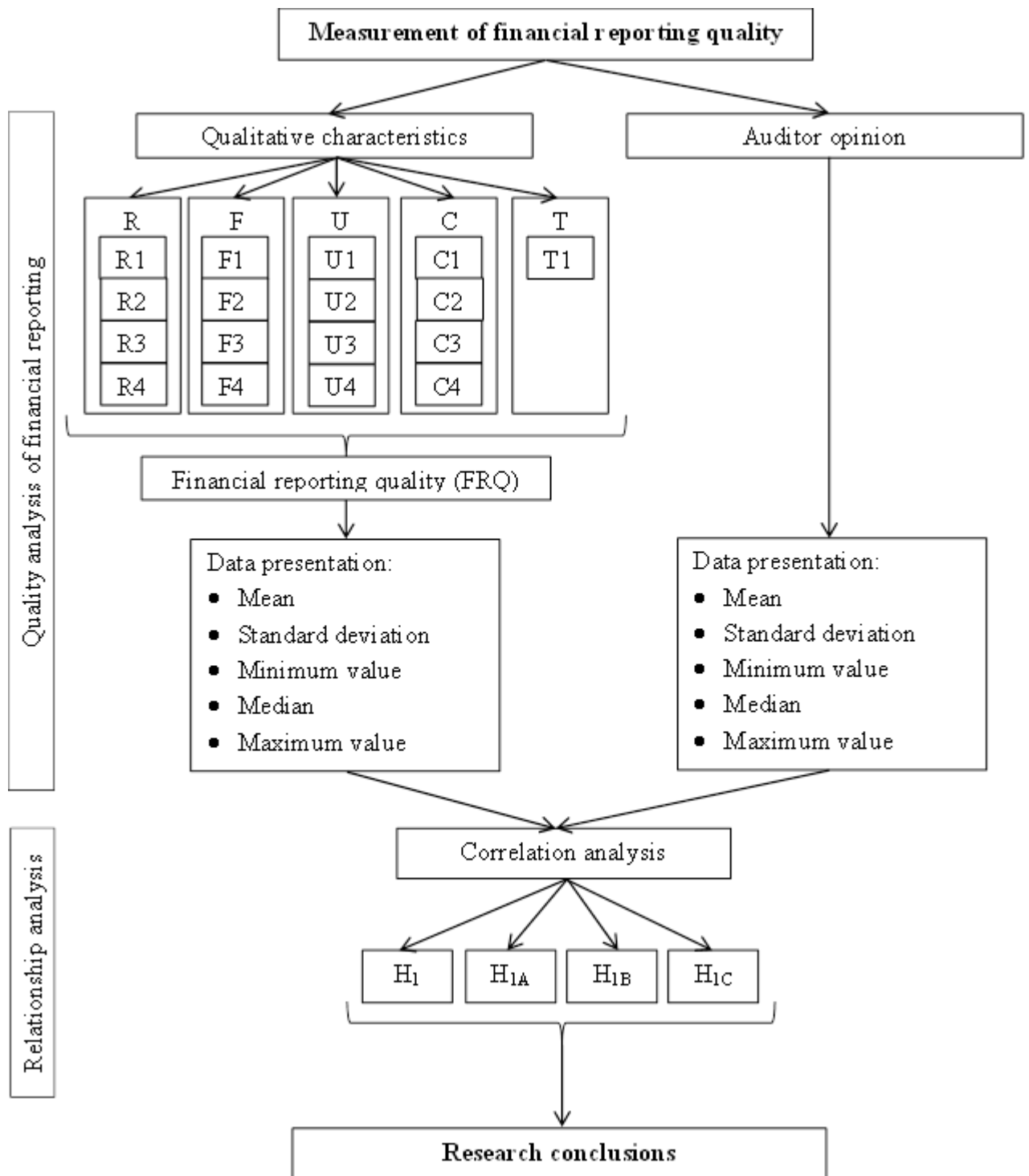


Fig. 5 Financial reporting quality measurement scheme (prepared by the author)

Summarizing the methodological part, the research is performed in two parts. The quality of financial reporting is analyzed according to the selected characteristics for 2014–2018 years, and the analysis of 2014–2018 relations is performed, according to the hypotheses raised.

4. Results of financial reporting quality measurement

The research examines the financial reporting of companies listed on the Nasdaq Baltic main list for the period 2014-2018. During the period of the research, only a part of the companies had submitted financial reports for 2019, therefore this year was not selected for the research. The list consists of 34 companies, but only 33 companies' financial reports were used for the research, as „Novaturas” did not submit all financial reports for the period under review. The list of companies covered by the research is given in appendix 1.

4.1. Descriptive statistics

The market for the companies concerned by the investigation is reviewed. The companies in research are reviewed by sector and country. The breakdown of the companies examining in the research by economic sector is as used by the NASDAQ OMX Stock Exchange in the Baltic States, i.e. The ICB (Industry Classification Benchmark) is a widely used global classification standard for companies, which divides companies into 10 sectors. The companies in research belong to various sectors of the economy: basic materials, communication services, consumer cyclical, consumer defensive, energy, financial services, healthcare, industrials, real estate, technology and utilities (see table 11).

Table 11 Distribution of enterprises by economic sector (prepared by the author)

Sector	Number
Basic Materials	1
Communication Services	2
Consumer Cyclical	4
Consumer Defensive	6
Energy	1
Financial Services	3
Healthcare	2
Industrials	7
Real Estate	3
Technology	1
Utilities	3

In Table 10, we see that most companies belong to the industrials and customer defensive sectors. Only 1 company was selected from the basic materials, energy and technology sector, and 2 companies from the healthcare and consumer services sector - 3 companies from the financial services, real estate and utilities sector - 4 companies from consumer cyclical sector.

The Nasdaq Baltic Stock Exchange consists of companies from Lithuania, Latvia and Estonia. Figure 6 shows the distribution of the companies by country.

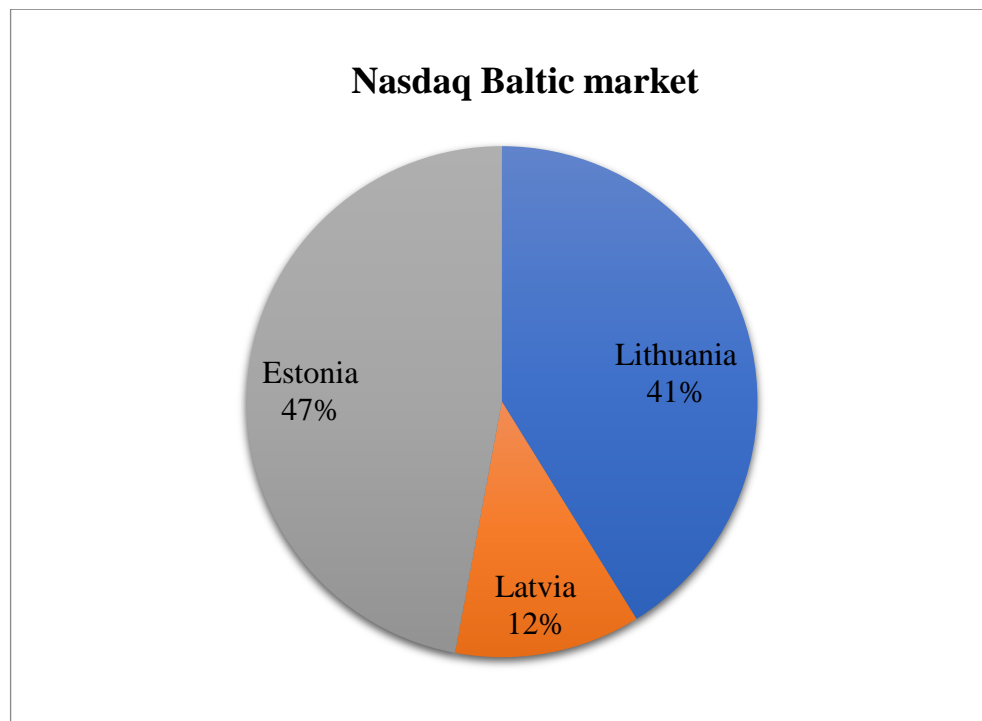


Fig. 6 Distribution of enterprises by countries (prepared by the author)

The largest part of the market consists of Estonian and Lithuanian companies, 47% and 41% respectively. Latvian companies have the smallest market share, only 12%. Research evaluates 16 Estonian companies, 14 Lithuanian and 4 Latvian.

4.2. Financial reporting quality under qualitative characteristics

This part will review the assessment of the quality of financial reporting based on qualitative characteristics. Each characteristic (relevance, faithful representation, understandability, comparability and timeliness) will be reviewed separately and as a whole to assess the quality of the financial reporting. Measurement of financial reporting quality under qualitative characteristics include mean, standard deviation, median, minimum and maximum values of each qualitative characteristics, and examined trends over 2014-2018.

The first qualitative characteristic considered is the relevance of the financial reporting. The relevance criterion had an increasing trend in 2014-2018, with an overall average of 12.75-13.39 points from 20 (table 12). According to the standard deviation indicator, it can be seen that the relevance characteristic fluctuates in small modes, about 1.91-2.25. The minimum value of the Relevance characteristic varies between 8-10 points and the maximum between 16-18 points, during the period under consideration. The analysis showed that all companies used historical cost rather than fair value during the period considered (R1). For this reason, no company was given a maximum score in assessing the relevance of the reports. The second criterion (R2) related to the risk section insights into the company's risk profile was rated best from the relevance characteristics, averaging around 4 points out of 5. According to the remaining characteristics (R3-R4), firms pay more or less attention to these criteria. The mean of each criterion exceeds 3 out of 5 points (appendix 2).

Table 12 Summary statistic of relevance characteristic (prepared by the author)

	2014	2015	2016	2017	2018
Average	12,76	12,91	13,12	13,30	13,39
Standard Deviation	1,98	1,91	1,98	2,20	2,25
Minimum	8	10	10	9	9
Median	13	13	13	13	13
Maximum	16	17	17	17	18

The mean, median, minimum and maximum values of the relevance characteristic in 2014-2018 are shown in figure 7.

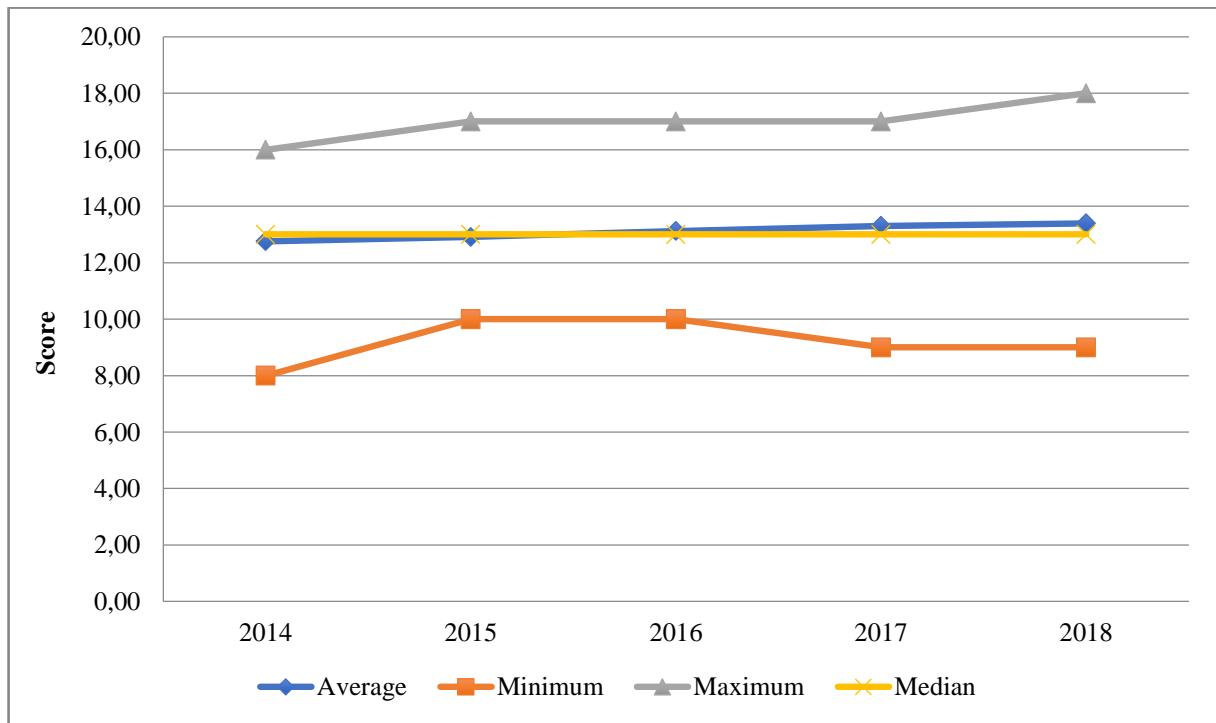


Fig. 7 Relevance characteristic summary statistic (prepared by the author)

The second characteristic examined was faithful representation of financial reporting quality. Faithful representation characteristic was evaluated according to 4 criteria too. The average of this characteristic reaches 13.45-14.24 points out of 20 in 2014-2018 (table 13). During the period under review, the average tends to increase, which means that companies provide better quality reports based on faithful representation. According to this characteristic, companies are usually evaluated with 14-15 points out of 20. Assessing whether a company's financial reporting clearly explain assumptions and estimates made (F1), and the choice of accounting principles (F2), it can be said that quite a lot of attention is paid to these criteria. It is worth noting that no company scored a maximum score of 20. As a result, companies are reluctant to mark negative events in a balance way (F3) or not all companies provide detail on corporate governance information (F4) (appendix 3).

Table 13 Summary statistic of faithful representation characteristic (prepared by the author)

	2014	2015	2016	2017	2018
Average	13,45	13,85	13,70	13,97	14,24
Standard deviation	2,63	3,00	3,04	2,90	2,83
Minimum	7	7	7	7	7
Median	14	14	14	15	15
Maximum	18	19	19	19	19

Figure 8 depicts faithful representation characteristic summary statistic according mean, median, minimum, and maximum values.

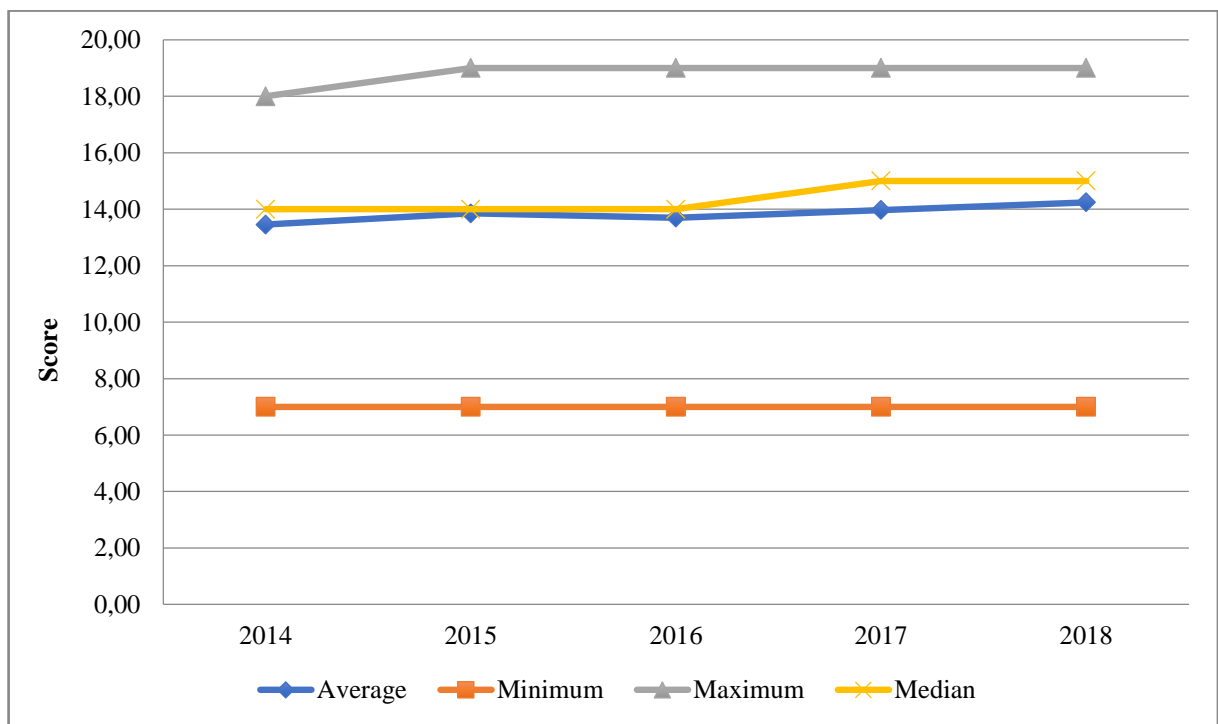


Fig. 8 Faithful representation characteristic summary statistic (prepared by the author)

Understandability was another qualitative characteristic examined. The comprehensibility criterion is rated at approximately 13 out of 20 in 2014-2018 (table 14). The difference between the minimum and maximum value is 8. The calculated median showed that the score ranged 13-14. When evaluating the U1 criterion, which is an explanation of the balance sheet and profit and loss account, the average was found to be 3.73-3.88 points. Companies listed on the Nasdaq Baltic Stock Exchange provide clear balance sheets and profit and loss accounts. The results and explanations of almost all companies' financial reporting are illustrated by tables and figures (U2). None of the companies provide a glossary in their financial reporting. For this reason, the U4 criterion were rated only 1 out of 5 points. For this reason, the highest score was 16 out of 20. However, it is important to note that the assessment of the U4 criterion showed that the company's language and technical judgement in the financial reports is easy to follow (appendix 4).

Table 14 Summary statistic of understandability characteristic (prepared by the author)

	2014	2015	2016	2017	2018
Average	13,03	13,09	13,39	13,39	13,52
Standard deviation	2,32	2,30	2,15	2,15	2,11
Minimum	8	8	8	8	8
Median	13	14	14	14	14
Maximum	16	16	16	16	16

As well, Figure 9 illustrates the trends in understandability characteristics of statistics in 2014-2018.

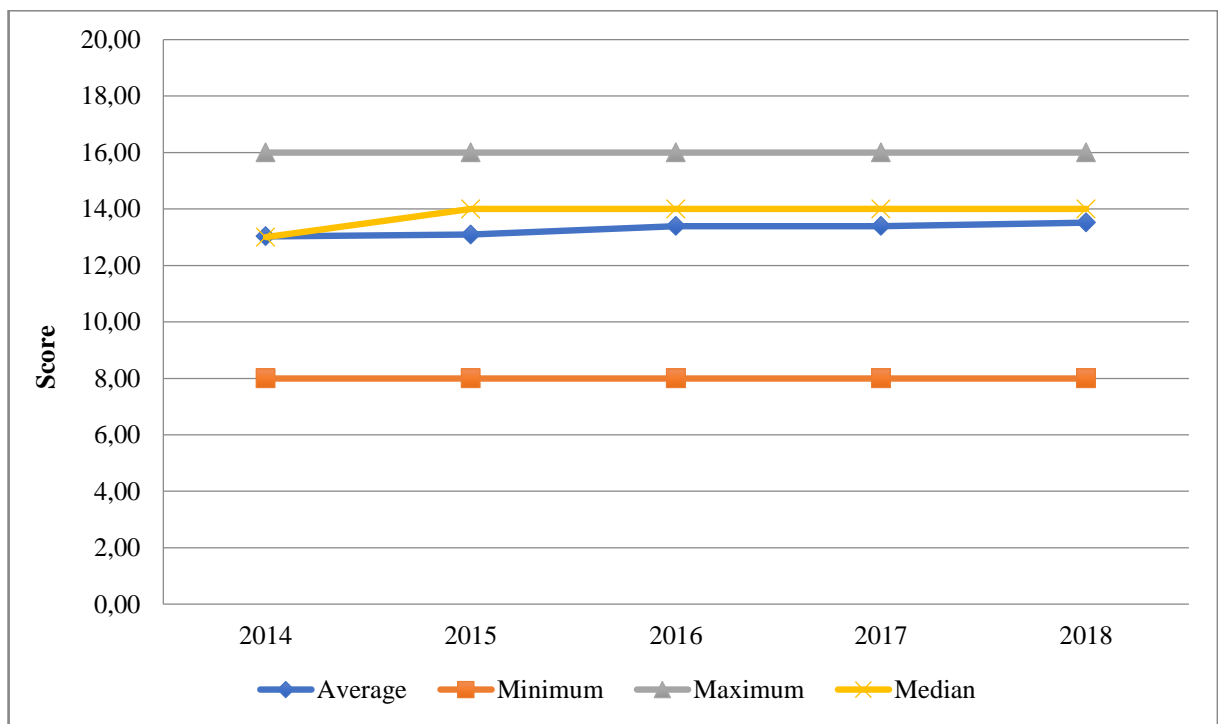


Fig. 9 Understandability characteristic summary statistic (prepared by the author)

Another qualitative characteristic to be assessed was comparability. The average of the comparability characteristic was 14.82-15.45 during the period under review (table 15). As can be seen in the table, most companies scored 16 out of 20. The assessment of the financial reporting quality shows that companies pay close attention to disclosing comparability characteristics. The averages did not change significantly throughout the year under review: C1 ranged between 3.33 and 3.61 and C2 between 4.09 and 4.27. After analysis for do the notes to revisions in accounting estimates and judgments explain the implications of the revision, and do the notes to changes in accounting policies explain the implications of the change was found that the averages did not change significantly throughout the year under review: C1 ranged between 3.33 and 3.61 and C2 between 4.09 and 4.27. Only 2 of the 33 companies examined compare 10 years accounting periods in 2014-2018 (C3). Most companies provide comparisons and insights for a period of 5 years. Based on the calculated median, it was found that companies usually report 10 and more index or ratios in the annual report (U4). Companies usually

provide ratios such as earnings before interest, taxes, depreciation and amortization (EBITDA), return or equity (ROE), return of asset (ROA), profit margin (appendix 5).

Table 15 Summary statistic of comparability characteristic (prepared by the author)

	2014	2015	2016	2017	2018
Average	14,82	15,03	15,06	15,18	15,45
Standard deviation	3,24	3,24	3,25	3,29	3,23
Minimum	4	4	4	4	4
Median	16	16	16	16	17
Maximum	19	19	19	19	19

After reviewing the values of the comparability characteristic, the means, medians, minimum and maximum values in 2014-2018 were plotted graphically.

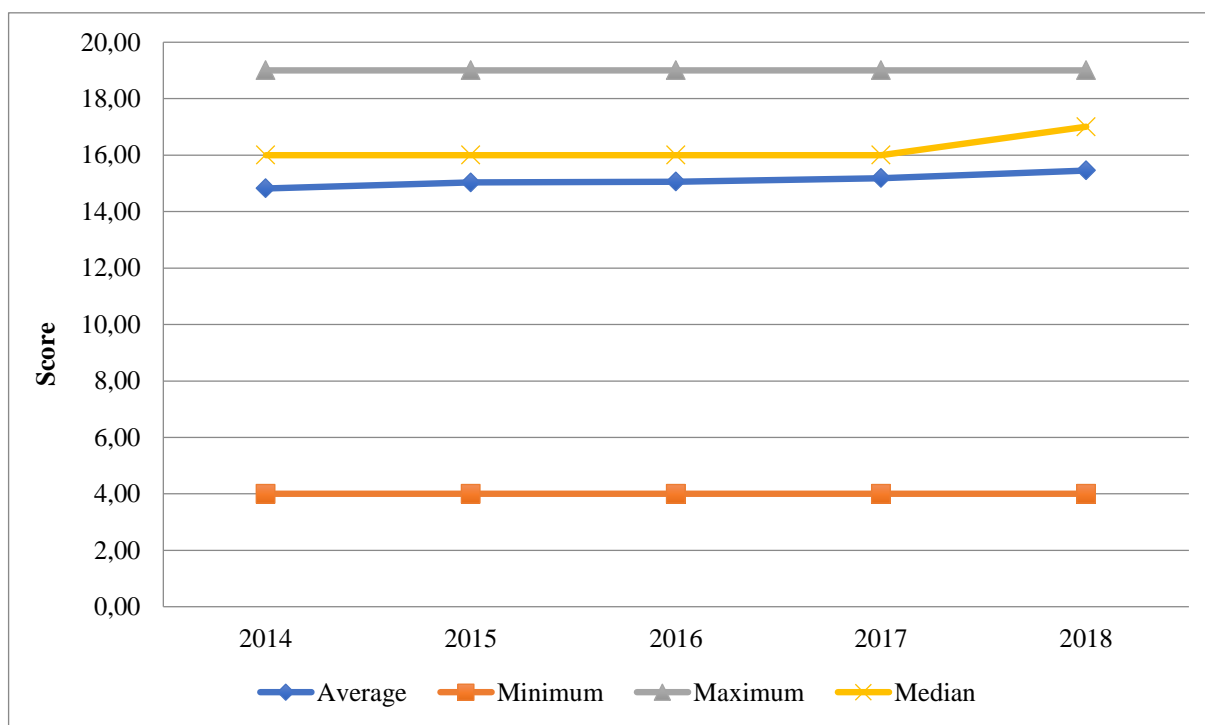


Fig. 10 Comparability characteristic summary statistic (prepared by the author)

Last, but not least qualitative characteristic was timeliness. The timeliness characteristic was assessed according to one criterion: how many days it takes for the auditor to sign the report from the end of the financial year. The analysis found that it takes an average of 89-94 days for auditors to sign a report, that's about 3 months (table 16). The standard deviation is the smallest in 2018 and reaches 18.9 days, and the largest in 2015 when it reaches 28 days. Based on the calculated median, it could be seen that the audit is usually performed within 88-92 days (about 3 month), which is not far from the calculated mean of the characteristic. The shortest process varies between 50-57 days, longest 122-200 days.

Table 16 Summary statistic of timeliness characteristic by days (prepared by the author)

	2014	2015	2016	2017	2018
Average	91	94	89	89	91
Standard deviation	21,5	28,0	19,8	20,5	18,9
Minimum	57	56	54	54	50
Median	90	91	90	88	92
Maximum	149	200	118	127	122

Figure 11 illustrates the timeliness characteristic in 2014-2018 according to the scores. The period under review shows a declining trend, which means that auditors spend less time auditing companies. The reduction in time may have been due to changes in auditors' reporting requirements in 2016. Financial reporting quality average scores under timeliness characteristic ranges from 3.91 to 4.03 points out of 5 in 2014-2018.

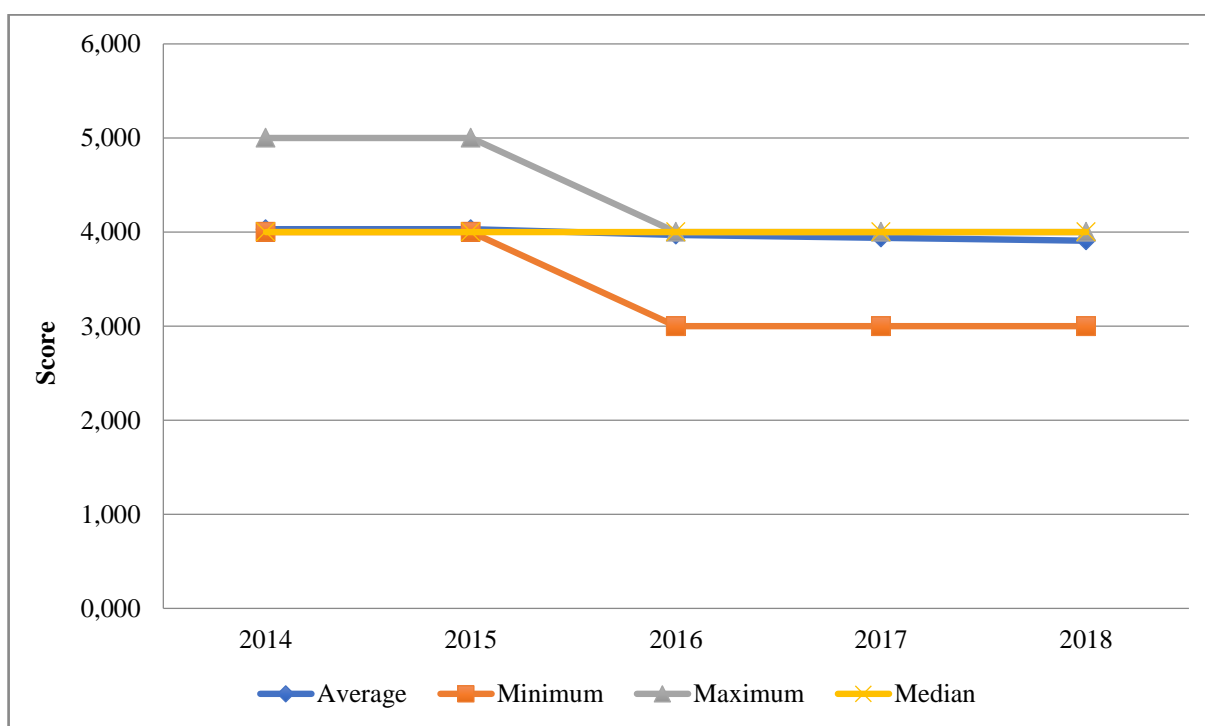


Fig. 11 Timeliness characteristic trend by scores (prepared by the author)

The comparison of characteristics is presented in figure 12 for 2014-2018. To compare these characteristics with each other and with timeliness, each characteristic average divided by the number of criteria. The figure shows that the timeliness characteristic was best evaluated. However, only 1 criterion was used to evaluate this characteristic. Relevance, faithful representation, understandability and comparability characteristics was evaluated by 4 criteria. Companies listed on Nasdaq Baltic's Stock Exchange market financial reporting best disclose comparability characteristic. The lowest scores were given to relevance characteristic. Figure 12 shows that all characteristics except timeliness increasing in the period 2014-2018.

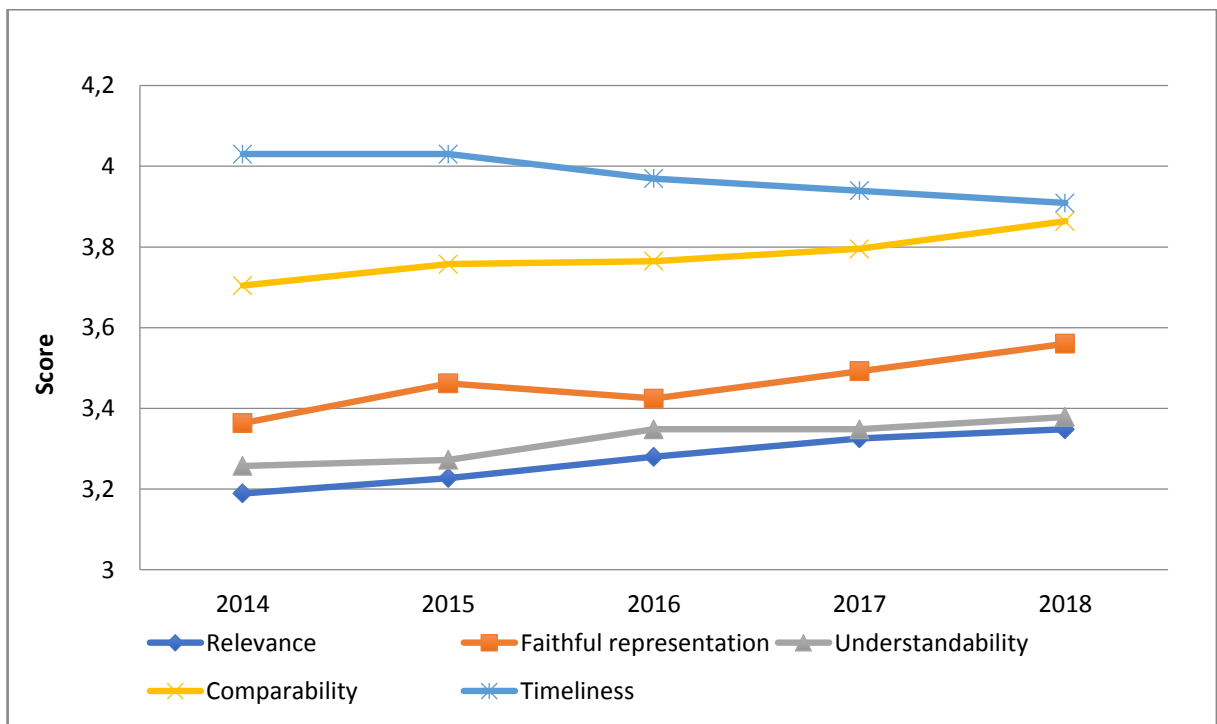


Fig. 12 Qualitative characteristics trends by scores (prepared by the author)

The quality of the financial reporting was assessed against all 5 characteristics combined (table 17). The analysis found that the quality of the financial statements of 33 companies ranged from approximately 58.09 to 60.52 points of 85 during the period considered. According the standard deviation, the quality of financial reporting ranges from 8.31 to 8.98 points. Based on the calculated median, it can be seen that companies usually received 59-62 points, which is slightly more than the average obtained. The results in Table 16 show that the overall financial reporting quality index had the minimum value of 35 and the maximum value of 75 out of 85.

Table 17 Summary statistic of financial reporting quality (prepared by the author)

FRQ	2014	2015	2016	2017	2018
Number of enterprises	33	33	33	33	33
Average	58,09	58,91	59,24	59,79	60,52
Standard deviation	8,31	8,57	8,87	8,98	8,57
Minimum	35	36	35	35	36
Median	60	59	60	62	62
Maximum	70	74	74	74	75

Figure 13 shows the average quality index of financial reporting according to qualitative indicators in 2014–2018. The graph shows that the financial reporting quality index is increasing during the period under review. Over five years, the average has risen 2.43 points. The largest increase in quality is seen from 2014 to 2015, when the quality score increased by 0.82 points. The lowest growth was recorded in 2015-2016, when the quality indicator increased by 0.33 points during the year.

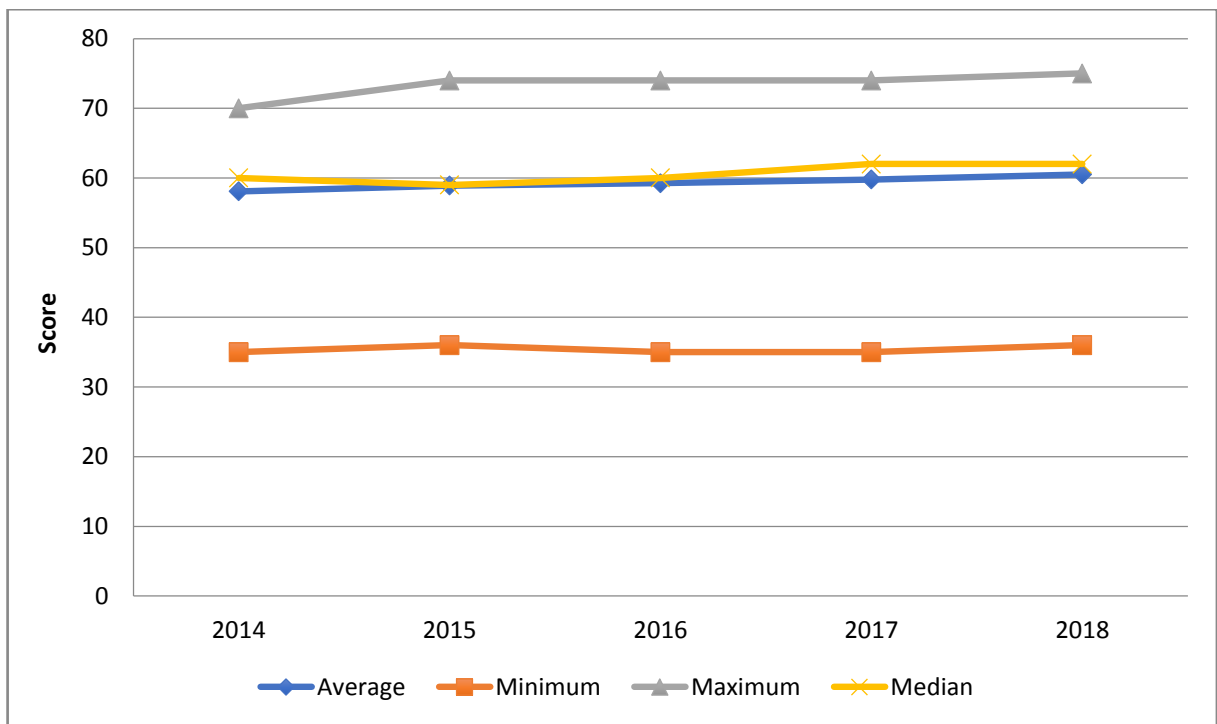


Fig. 13 Financial reporting quality trend by scores (prepared by the author)

It was decided that the maximum value of the index should be equated to 100% (85 points), so when the ratio of values was obtained, the result of the index of quality discovery 1 is 1.18% (100% / 85 points). = 1.18% / 1 point). For interpretation of estimates values, quality evaluation model of Pivac et al (2017) was used: poor quality with index 0–20%, low quality 21–40%, medium quality 41–60%, sufficient quality 61–80% and high quality - 81-100%. The ranking of financial reporting of companies in the Nasdaq Baltic market is presented in table 18. The table shows that none of the companies concerned are classified as poor and low quality companies. The majority of reports are of sufficient quality. These companies scored between 52 and 68 points out of 85.

Table 18 Financial reporting quality level 2014-2018 (prepared by the author)

Quality characteristics	Rating	2014	2015	2016	2017	2018
poor quality	0-20%	0	0	0	0	0
low quality	21-40%	0	0	0	0	0
average quality	41-60%	6	7	7	6	5
sufficient quality	61-80%	25	22	21	22	22
high quality	81-100%	2	4	5	5	6

For a better representation of the quality level of the financial reporting, a graph illustrating the valuation of companies listed on Nasdaq Baltic is provided (figure 14). The graph below shows that two thirds of the reports examined are assessed as sufficient quality in 2014-2018. The period under review shows a declining trend in sufficient quality, with a slight increase in 2017. The increase in average quality companies is seen in 2015, and by 2018 there is a declining trend. With high quality

companies, the opposite trend can be seen, from 2014 to 2018, the number of companies increased 3 times.

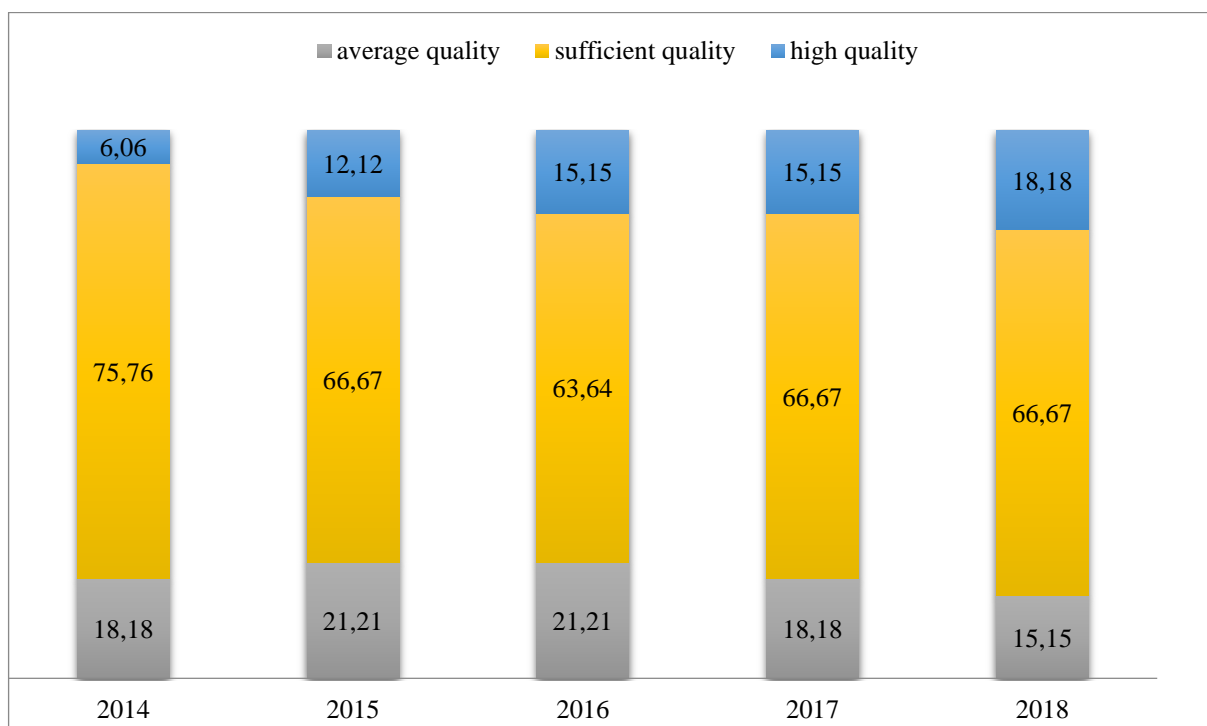


Fig. 14 Financial reporting quality level 2014-2018 (prepared by the author)

Assessing these data, it could be said that the quality of financial reporting of companies listed on Nasdaq Baltic 2014-2018 improves over the years. From 2014 to 2018, the number of companies whose reports are assessed as high quality increased by as much as 10 percent. Available and sufficient quality reports decreased between 2014 and 2018

In this section, each of the 5 characteristics was reviewed separately, as well as the characteristics were compared with each other, the quality estimates of the financial reporting and the quality level of the financial reporting of each company were determined, as well as the data were compared for the period 2014-2018. Summarizing the assessment of the quality of financial statements using qualitative characteristics was determined that the quality of financial statements is improving in the period of 2014-2018. Firms improve the quality of financial reporting by providing detailed and clear information that is understandable to external users, especially investors.

4.3.Examination of auditor's opinions

The part of the research will review the type of opinion of the external auditors in the auditors' report. During this evaluation, 165 annual reports of 33 organizations submitted for the period 2014-2018 were reviewed. Of these, 97 percent (i.e. 160 reports) were audited by audit firms belonging to the Big Four (PricewaterhouseCoopers (PWC); KPMG; Ernst & Young (E&Y); Deloitte) (figure 15). Only 3 percent of reports, i.e. 5 reports, were audited by other auditors during 2014-2018.

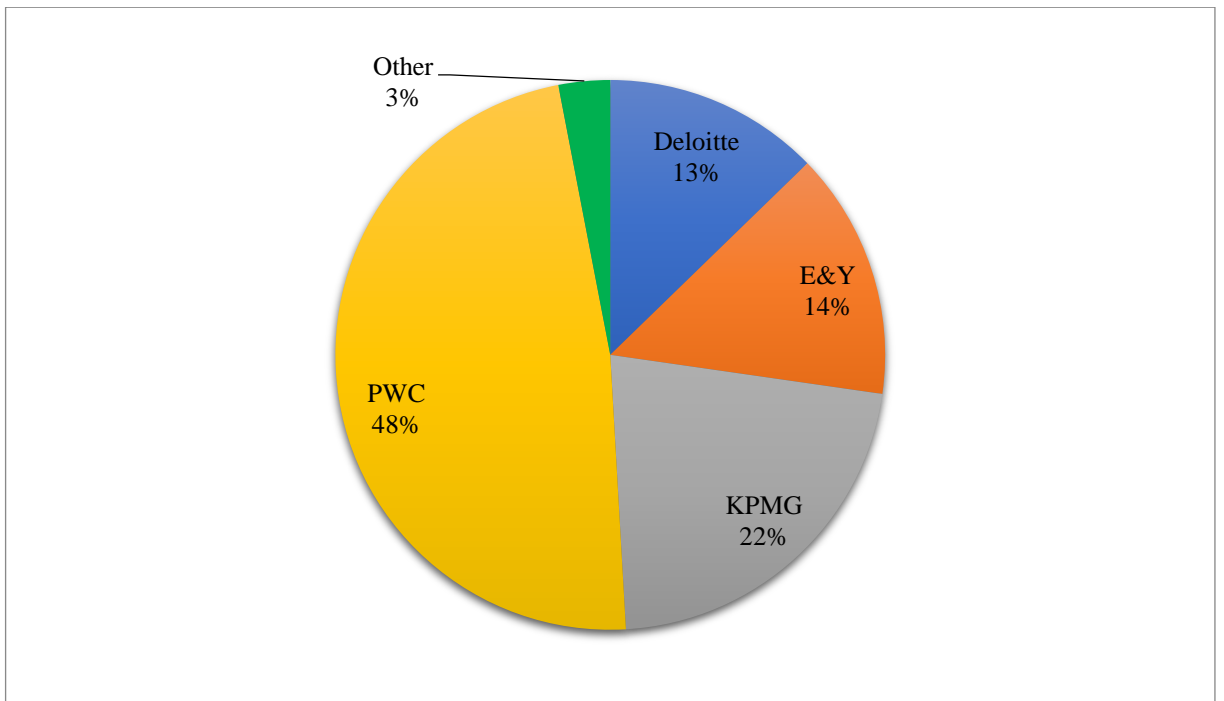


Fig. 15 Audit companies that performed audits in the period of 2014-2018 (prepared by the author)

The analysis of the auditor's report reveals a tendency that approximately half of the examined companies audited by PWC in the period 2014-2018 (figure 16). Nearly a quarter of the reports - 22%, were audited by KPMG in 2014-2018. About the same numbers of corporate reports were audited by Ernst & Young and Deloitte companies. It is worth noting that in 2014, Nasdaq Baltic listed companies reports were audited only by firms belongs to Big Four.

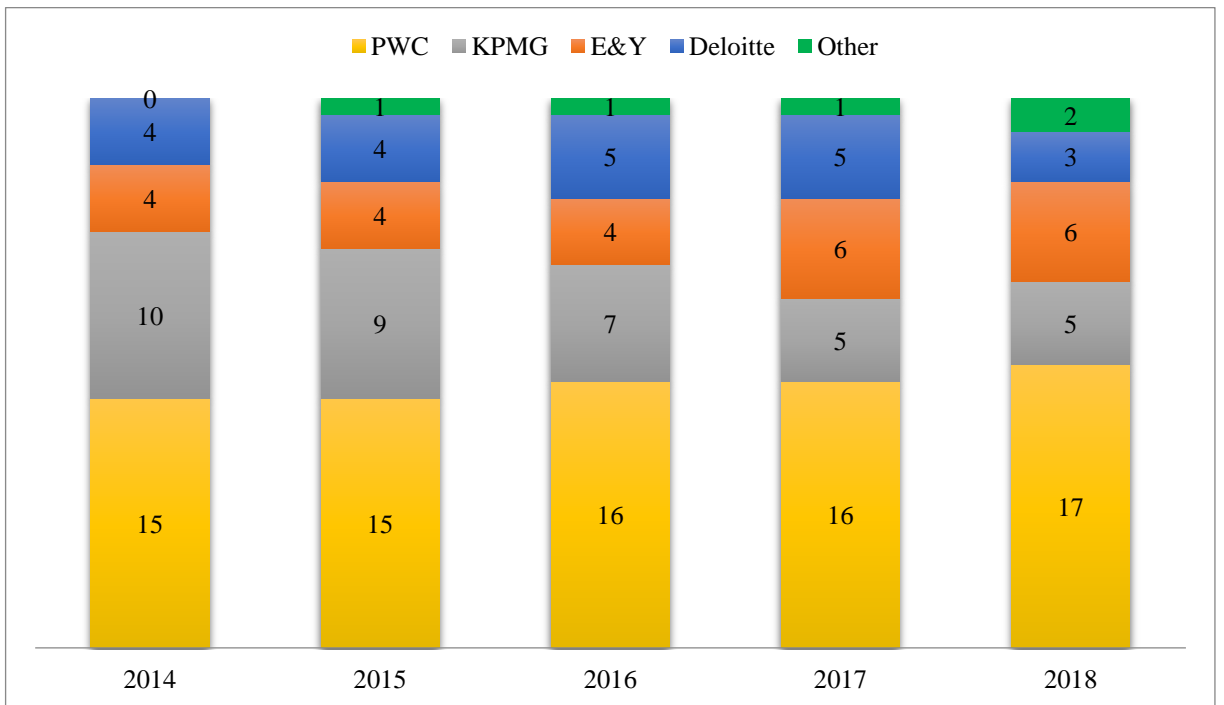


Fig. 16 Audit companies that performed audits in 2014-2018 (prepared by the author)

The possible opinions of the auditors in this research are 5: adverse opinion, disclaimer of opinion, qualified opinion, unqualified opinion with emphasis of matter and unqualified opinion. An examination of the reports submitted by the auditors of Nasdaq Baltic listed companies revealed that no company received an adverse or disclaimer opinion during the period under review (table 19). By qualified opinion 3 companies were evaluated in 2014, and only one in 2018, therefore it can be stated that the companies take into account the submitted audit conclusions. The number of companies evaluated by unqualified opinion with emphasis of matter did not change: 6 companies each year, except for 2017, when 8 companies received such auditors' opinion. As many as 79 percent of corporate reports were evaluated in an unqualified opinion in 2018 (appendix 6). The reports of 5 different companies were evaluated by qualified opinion during the period under review and the reports of five companies were assessed in an unqualified opinion with emphasis of matter throughout the period 2014-2018. In the opinion of auditors, the reports of as many as 19 companies were evaluated as unqualified opinion in 2014-2018.

Table 19 Distribution of the auditor's opinion in the period of 2014-2018 (prepared by the author)

	2014	2015	2016	2017	2018
Adverse opinion	0	0	0	0	0
Disclaimer of opinion	0	0	0	0	0
Qualified opinion	3	3	2	2	1
Unqualified opinion with emphasis of matter	6	6	6	8	6
Unqualified opinion	24	24	25	23	26

The opinion provided by the auditors is rated on a scale of 1 to 5, according to the rating scale shown in Figure 4. In evaluating the opinion provided by the auditors, the mean, standard deviation, median, minimum and maximum values in 2014-2018 were calculated (table 20). The mean of the selected criterion varies between 4.64 points and 4.76 points out of 5, and the standard deviation is between 0.50 and 0.65. The lowest score was 3, and the highest 5 was obtained after examining the report of the auditors of 33 companies listed on the Nasdaq Baltic Stock Exchange for the years 2014-2018. In most cases, companies received 5 points because their reports were rated as unqualified opinion.

Table 20 Summary statistic of the auditor's opinion (prepared by the author)

	2014	2015	2016	2017	2018
Average	4,64	4,64	4,70	4,64	4,76
Standard deviation	0,65	0,65	0,59	0,60	0,50
Minimum	3	3	3	3	3
Median	5	5	5	5	5
Maximum	5	5	5	5	5

The figure 17 shows the increase in scores in 2016, which may have been due to the changed structure of the auditor's report presentation since 2016. The average score of 4.64 was set for three periods out of 5, that is, in 2014, 2015, and 2017. The highest average of even 4.76 points out of 5 was set in 2018. The average of auditors' opinion from 33 companies increased by 0.12 points over the five years from 2014 to 2018.

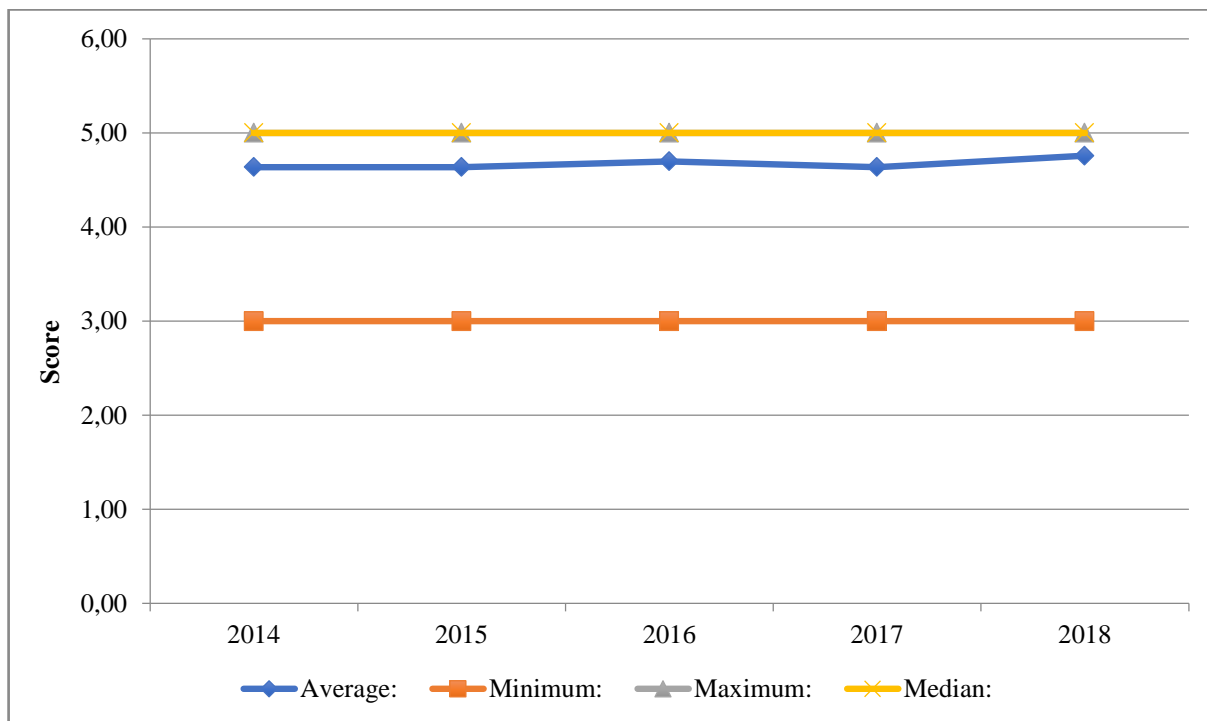


Fig. 17 Auditor's opinion average trend by scores (prepared by the author)

In summary analysis of examination of auditors' opinions, it was found that almost all reports of Nasdaq Baltic listed companies were audited only by firms belonging to the Big Four (PWC; KPMG; E&Y; Deloitte). As well, it was found that approximately 74 percent of corporate reports were evaluated in an unqualified opinion in the period 2014-2018. According to the measuring of auditors' opinion, the companies' reports maintain a relatively high average throughout the period under review, averaging 4.64-4.76 out of 5.

4.4. Relationship analysis

The 4 hypotheses raised (H1; H1a; H1b; H1c) are tested by correlation analyzes. Correlation analysis is performed to examine the relationship between financial reporting quality under qualitative characteristics and auditors' opinion for Nasdaq Baltic listed companies, as well for each country included in Baltic list. The correlation analysis presents the relationship between the total financial reporting quality index, the qualitative characteristics and the type of auditors' opinion in Nasdaq Baltic, Lithuanian, Latvian and Estonian markets.

The total financial reporting quality index is strongly positively related to the type of auditors' opinion of the enterprise (table 21). It indicates that the higher quality of disclosed information in financial reporting it delivers, the better type of auditors' opinion provided in the report. Relevance characteristic

moderately positively related with the analyzed indicator of the enterprise. When a firm uses fair value rather than historical value, provides insights into the firm's risk profile, discloses future-oriented information and intangible assets, it obtains a better audit opinion. The faithful presentation has average positive relation to the type of auditors' opinion. The clearer the annual report explains the assumptions and estimates made, the choice of accounting principles, the balance sheet highlights positive and negative events, and provides detailed information on corporate governance issues, the better the auditor's opinion. Understandability has strong positive relationship with the type of auditors' opinion, it means the more explanations of balance sheet, and profit and loss account provided, graphs and tables clarify information presented, no technical judgments using, the better type of auditors' opinion has. Comparability as well is strongly positively related to the type of auditors' opinion, i.e. the more disclosed information about accounting policy, accounting estimates, ratios and their changes in explanatory notes is presented, and the better type of auditors' opinion has. Timeliness is strongly negatively related to the type of auditors' opinion. It suggests that when better type of auditors' opinion, the auditor's report needs more time to be signed and presented. Thus, decision-makers have more time to get available information. The better type of auditors' opinion of the Nasdaq Baltic market correlates most with the comparability characteristic and least with faithful representation. Hypothesis that a higher score on the quality of financial reporting in terms of qualitative characteristics is correlated with a type of auditor's opinion for companies listed in Nasdaq Baltic, confirmed.

Table 21 Nasdaq Baltic market correlation of qualitative characteristics and auditors' opinion indicator (prepared by the author)

Variable	Type of auditors' opinion	Value interpretations
Financial Reporting Quality	0,718	Strong positive correlation
Relevance	0,651	Average positive correlation
Faithful representation	0,620	Average positive correlation
Understandability	0,752	Strong positive correlation
Comparability	0,770	Strong positive correlation
Timeliness	-0,719	Strong negative correlation

Examining the second hypothesis if a higher score on the quality of financial reporting in terms of qualitative characteristics is positively correlated with a type of auditor's opinion for Lithuanian companies listed in Nasdaq Baltic, only Lithuanian companies listed on the Nasdaq Baltic Stock Exchange were examined. The correlation analysis showed that the quality of the financial reporting in terms of qualitative characteristics strongly positively correlates with the type of auditors' opinion (table 22). Average positive correlation was determined for relevance, understandability and comparability characteristics, while strongly positively correlation for faithful representation characteristic. Weak positive correlation was determined by evaluating the timeliness characteristic, which means that the period of signing the auditor's report does not depend on the opinion of the auditors in the report. After evaluating the connections of Lithuanian companies listed on the Nasdaq Baltic Stock Exchange, it was established that the type of auditors' opinion correlates the most with faithful representation characteristic, and the least with timeliness. Hypothesis that a higher score on

the quality of financial reporting in terms of qualitative characteristics is correlated with a type of auditor's opinion for Lithuanian companies listed in Nasdaq Baltic, confirmed.

Table 22 Lithuanian market correlation of qualitative characteristics and auditors' opinion indicator (prepared by the author)

Variable	Type of auditors' opinion	Value interpretations
Financial Reporting Quality	0,819	Strong positive correlation
Relevance	0,647	Average positive correlation
Faithful representation	0,963	Strong positive correlation
Understandability	0,698	Average positive correlation
Comparability	0,683	Average positive correlation
Timeliness	0,221	Weak positive correlation

The relationship was assessed according to the same criteria for Latvian companies listed on the Nasdaq Baltic Stock Exchange (table 23). A weak negative correlation was obtained when assessing the relationship between the quality of the financial reporting and the auditors' opinion. The correlation coefficients of all examined characteristics except timeliness are negative. Average correlation was determined for relevance characteristic. The faithful representation characteristic does not correlate with the auditors' opinion because a very weak negative relationship was found. This is the weakest correlation coefficient when examining the Latvian market. In assessing the characteristics of understandability and comparability, a weak negative relationship was found with the auditor's opinion. The strongest correlation was determined with the timeliness characteristic, meaning the type of auditor's opinion depends on how long the auditors need to sign the audit report from the end of the company's financial year. Hypothesis that a higher score on the quality of financial reporting in terms of qualitative characteristics is correlated with a type of auditor's opinion for Lithuanian companies listed in Nasdaq Baltic, denied.

The rejection of the hypothesis could be influenced by the small amount of data, as only 4 companies in the Latvian market were examined. Likewise 3 Latvian market companies received the lowest scores (recognized as average quality) in terms of the quality of financial statements, only "Olafarm" company was distinguished, the quality of which was assessed as sufficient quality. Of the 20 reports examined, as many as 9 received a qualified opinion when evaluating the financial reporting. Distinctness was observed in the evaluation of "Olafarm" company financial reporting, despite the fact that the financial reporting of the companies received 60-62 points out of 85, three periods in 2015-2017 the financial reporting of the companies were evaluated by qualified opinion. The qualified auditor's opinion was determined by the allowance of doubtful was recognized in the wrong accounting period, this criterion was not considered in terms of qualitative characteristics. In evaluating such a small sample, one of the distinctiveness is of great importance in assessing the interrelationship. In the future, it would be more appropriate to assess this hypothesis by taking a larger sample, then to establish a more targeted relationship.

Table 23 Latvian market correlation of qualitative characteristics and auditors' opinion indicator (prepared by the author)

Variable	Type of auditors' opinion	Value interpretations
Financial Reporting Quality	-0,463	Weak negative correlation
Relevance	-0,672	Average negative correlation
Faithful representation	-0,089	Very weak negative correlation
Understandability	-0,490	Weak negative correlation
Comparability	-0,339	Weak negative correlation
Timeliness	0,829	Strong positive correlation

Hypothesis that a higher score on the quality of financial reporting in terms of qualitative characteristics is correlated with a type of auditor's opinion for Estonian companies listed in Nasdaq Baltic, confirmed, because strongly positively correlation of financial reporting quality and auditors' opinion was determine (table 24). As well, strong positive correlation was established for undersandability and comparability characteristics, when average positive correlation was established for relevance and faithful representation characteristics. A strong negative relationship was found when assessing the timeliness characteristic. Overall, the relationship between all the characteristics examined and the auditors' opinion is quite strong. The strongest relationship was found for the financial reporting quality index, and the weakest relationship was found for the relevance characteristic.

Table 24 Estonian market correlation of qualitative characteristics and auditors' opinion indicator (prepared by the author)

Variable	Type of auditors' opinion	Value interpretations
Financial Reporting Quality	0,838	Strong positive correlation
Relevance	0,633	Average positive correlation
Faithful representation	0,679	Average positive correlation
Understandability	0,715	Strong positive correlation
Comparability	0,785	Strong positive correlation
Timeliness	-0,814	Strong negative correlation

The correlation analysis between the quality of the financial statements under qualitative characteristics and the auditors' opinion in examining the hypotheses is illustrated in figure 18. The graph shows that the relationship between the Nasdaq Baltic, Lithuanian and Estonian markets is very similar, only the Latvian markets stood out. As well in testing the Latvian market hypothesis, it was denied, when the hypotheses of the remaining markets were confirmed. The variables of the Latvian market are very different, when the variables of the remaining markets are closely related. According to both the quality indicators of the financial reporting and the opinion of the auditors, the financial reporting of Latvian market companies is not prepared qualitatively in comparison with other markets.

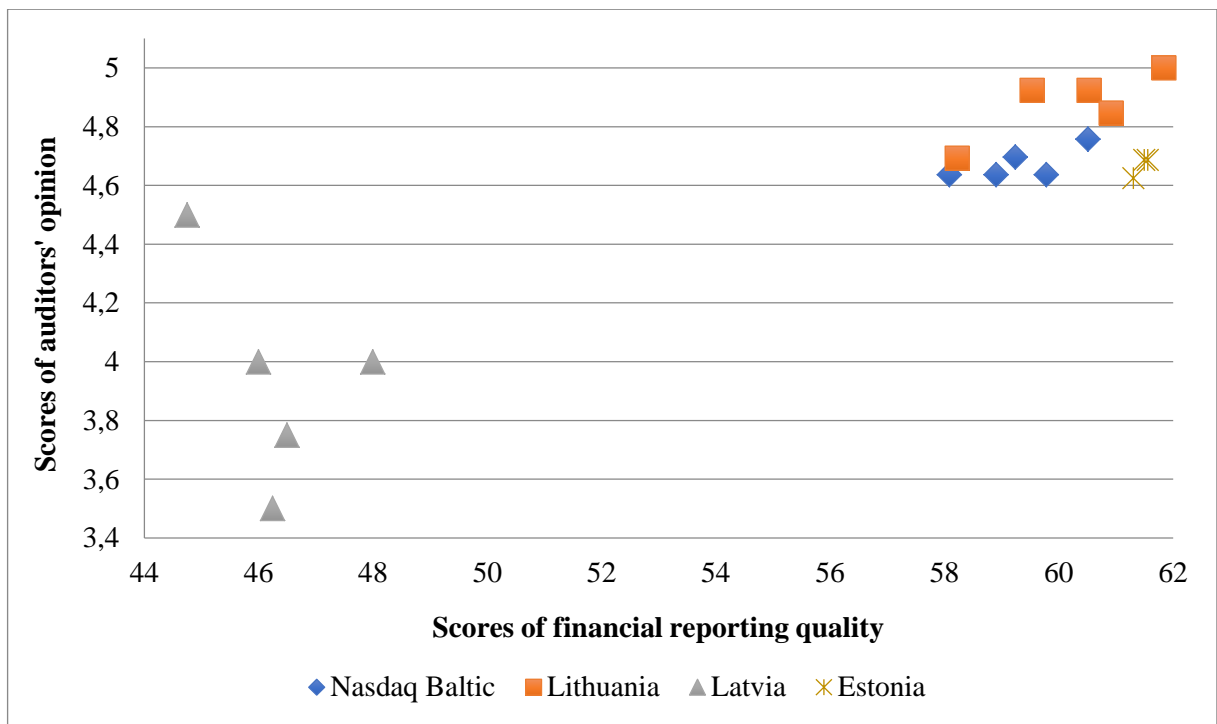


Fig. 18 The relationship between the quality of the financial reporting and the opinion of the auditors, of each market (prepared by the author)

Summarizing the analysis of relationships, 3 hypotheses were confirmed and one was rejected. The rejection of the hypothesis may have been influenced by the small amount of data for the connection calculation, as only 4 Latvian companies are included in the Nasdaq Baltic list. In general, it could be said that a higher score on the quality of financial reporting in terms of qualitative characteristics is correlated with a type of auditor's opinion for companies listed in the Nasdaq Baltic Stock Exchange.

Conclusions

1. Examination of the scientific literature has revealed that there is no general concept of the quality of financial reporting, which means that there are no universally accepted criteria and methods for assessing the quality of financial reporting. After summarizing the authors' opinions, a definition of the quality of financial reporting was formulated. The quality of the financial reporting is the accuracy of the presentation of an enterprise's assets, equity, liabilities, income, expenses, and cash inflows and outflows in its financial reporting, and its understandability to users. Measuring the quality of financial reporting is problematic because there is no single correct method to do so. And all the models proposed by the researchers have shortcomings and underestimate the quality of the financial reporting, as this is a broader concept than the research proposed. A lack of a systematic approach to the interaction between the quality of financial statements and the impact of the auditor's opinion was found to be lacking.
2. During the theoretical research, 3 directions of research on the quality of financial reporting were identified: accounting standardizations (both IFRS and IPSAS), internal and external audit role, and other characteristics. As well, research shows that none of the researchers' proposed method of measuring the quality of financial reporting comprehensively evaluates the quality of financial reporting. It is advisable to use several methods or their combination that would satisfy the user's needs as much as possible. After reviewing the researches related to the measurement of the quality of the financial reporting, the assessment was selected on the basis of quantitative characteristics (relevance, faithful representation, understandability, comparability, timeliness). 17 indicators were selected to assess the quality of the financial statements: 4 relevance, 4 faithful representation, 4 understandability, 4 comparability and 1 timeliness. The influence of the external auditors on the measurement of the quality of the financial reporting was used in accordance with the conclusions provided by the auditors in the audit reports. The evaluation scale of all criteria ranged from 1 to 5 points. In order to establish a relationship between qualitative characteristics and auditors' opinion, 4 hypotheses were raised in the research. The novelty of this model was the measurement of the relationship between the qualitative characteristics and the opinions of the external auditors. No researches were found measuring the relationship between financial reporting quality under qualitative characteristics and external auditors' opinion.
3. To sum up methodological part, the research consisted of two main parts. The first part of the study reviews the quality of financial statements and trends in terms of qualitative characteristics and auditors' opinions in audit reports for the period 2014-2018. In the second part of the research, is assessed the relationship between qualitative characteristics and the type of auditor's opinion using correlation analysis. All 4 hypotheses of the research are tested with the help of correlation.
4. Research results show that listed companies may improve the quality of financial reporting by providing relevance, faithful representation, understandable and comparable information to external users, especially investors. The quality of financial reporting assessed by qualitative characteristics had been improving over the investigated period 2014-2018. The quality of the financial reporting of two thirds of the examined companies was assessed between 61-80%, therefore it can be stated that the financial reports of the companies listed on the Nasdaq Baltic Stock Exchange have been prepared with better quality. Results of examination of auditors' opinions show, that 97 % reports of Nasdaq Baltic listed companies were audited only by firms

belonging to the Big Four. As well, it was found that approximately 74 percent of corporate reports were evaluated in an unqualified opinion in the period 2014-2018. According to the measuring of auditors' opinion, the companies' reports maintain a relatively high average throughout the period under review. Summarizing the analysis of relationships, 3 hypotheses were confirmed and one was rejected. The rejection of the hypothesis may have been influenced by the small amount of data for the connection calculation, as only 4 Latvian companies are included in the Nasdaq Baltic list. In general, it could be said that a higher score on the quality of financial reporting in terms of qualitative characteristics is correlated with a type of auditor's opinion for companies listed in the Nasdaq Baltic Stock Exchange.

5. All in all, only the data of the main market companies listed on the Stock Exchange in the Baltic States were used for the research, therefore the number of data to assess the quality of the companies' financial reporting, measured by qualitative characteristics, is small enough. If possible, a larger amount of data could be used for the study, especially to test the hypotheses according to the markets of each country. Possibly in this case, a larger number of companies or periods would be used to compare the market in each country, and the resulting coefficients would be more accurate. Overall, it can be concluded that more research is needed to improve the conceptually based assessment of the quality of financial reporting, as this would help to identify key aspects of the information that would make the reports useful in making decisions. It is suggested that such studies be performed in the future to obtain a more accurate measurement of the quality of the financial reporting.
6. The results of this research could be useful for investors, as the study assesses the quality of financial statements of companies listed on Nasdaq Baltic. When making decisions, investors can draw more detailed conclusions about companies than when assessing only on the basis of financial indicators. For example, by assessing whether companies disclose forward looking information in their reports, it is possible to predict the direction in which the company is prepared to work in the future and whether this may benefit the investor.

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Appendices

Appendix 1. List of Nasdaq Baltic companies and countries examined (prepared by the author)

Number	Company	Country
1	Apranga	Lithuania
2	Arco Vara	Estonia
3	AUGA group	Lithuania
4	Baltika	Estonia
5	Coop Pank	Estonia
6	Eften Real Estate Fund III	Estonia
7	Ekspress Grupp	Estonia
8	Energijos Skirst. Operatorius	Lithuania
9	Grigeo	Lithuania
10	Grindeks	Latvia
11	HansaMatrix	Latvia
12	Harju Elekter	Estonia
13	Ignitis gamyba	Lithuania
14	Klaipedos Nafta	Lithuania
15	LHV Group	Estonia
16	Linas Agro Group	Lithuania
17	Merko Ehitus	Estonia
18	Nordecon	Estonia
19	Olainfarm	Latvia
20	Panevezio Statybos Trestas	Lithuania
21	Pieno Zvaigzdes	Lithuania
22	PRFoods	Estonia
23	Pro Kapital Grupp	Estonia
24	Rokiskio Suris	Lithuania
25	SAF Tehnika	Latvia
26	Siauliu Bankas	Lithuania
27	Silvano Fashion Group	Estonia
28	Tallink Grupp	Estonia
29	Tallinna Kaubamaja Grupp	Estonia
30	Tallinna Sadam	Estonia
31	Tallinna Vesi	Estonia
32	Telia Lietuva	Lithuania
33	Vilkyskiu Pienine	Lithuania

Appendix 2. Summary statistic of relevance characteristic (prepared by the author)

	Mean	Standard Deviation	Minimum	Median	Maximum
R1					
2014	2,30	0,85	1	2	4
2015	2,36	0,82	1	3	4
2016	2,39	0,79	1	3	4
2017	2,45	0,79	1	3	4
2018	2,55	0,71	1	3	4
R2					
2014	3,97	0,95	2	4	5
2015	3,91	0,91	2	4	5
2016	3,97	0,85	3	4	5
2017	4,06	0,83	3	4	5
2018	4,12	0,82	3	4	5
R3					
2014	3,24	1,00	2	3	5
2015	3,30	0,98	2	3	5
2016	3,36	1,03	2	3	5
2017	3,36	0,99	2	3	5
2018	3,30	1,07	2	3	5
R4					
2014	3,24	1,30	1	3	5
2015	3,33	1,31	1	3	5
2016	3,39	1,30	1	3	5
2017	3,42	1,32	1	3	5
2018	3,42	1,32	1	3	5

Appendix 3. Summary statistic of faithful representation characteristic (prepared by the author)

	Mean	Standard Deviation	Minimum	Median	Maximum
F1					
2014	3,73	0,76	2	4	5
2015	3,79	0,93	2	4	5
2016	3,79	0,93	2	4	5
2017	3,82	0,92	2	4	5
2018	3,88	0,82	2	4	5
F2					
2014	4,03	0,95	2	4	5
2015	4,06	0,93	2	4	5
2016	4,03	0,88	2	4	5
2017	4,06	0,86	2	4	5
2018	4,06	0,90	2	4	5
F3					
2014	2,79	1,02	1	3	5
2015	3,06	1,30	1	3	5
2016	2,91	1,33	1	3	5
2017	2,91	1,26	1	3	5
2018	2,97	1,24	1	3	5
F4					
2014	2,91	1,42	1	3	5
2015	2,94	1,43	1	3	5
2016	2,97	1,53	1	3	5
2017	3,18	1,49	1	3	5
2018	3,33	1,45	1	4	5

Appendix 4. Summary statistic of understandability characteristic (prepared by the author)

	Mean	Standard Deviation	Minimum	Median	Maximum
U1					
2014	3,79	0,96	2	4	5
2015	3,64	1,08	1	4	5
2016	3,73	1,07	2	4	5
2017	3,73	1,07	2	4	5
2018	3,73	1,07	2	4	5
U2					
2014	4,52	0,97	1	5	5
2015	4,58	0,79	2	5	5
2016	4,70	0,73	2	5	5
2017	4,70	0,73	2	5	5
2018	4,70	0,73	2	5	5
U3					
2014	3,73	1,04	2	3	5
2015	3,88	1,05	2	4	5
2016	3,97	0,95	2	4	5
2017	3,97	0,95	2	4	5
2018	4,09	0,95	2	4	5
U4					
2014	1,00	0,00	1	1	1
2015	1,00	0,00	1	1	1
2016	1,00	0,00	1	1	1
2017	1,00	0,00	1	1	1
2018	1,00	0,00	1	1	1

Appendix 5. Summary statistic of comparability characteristic (prepared by the author)

	Mean	Standard Deviation	Minimum	Median	Maximum
C1					
2014	3,45	1,00	1	4	5
2015	3,33	1,08	1	3	5
2016	3,48	0,97	1	4	5
2017	3,61	0,97	1	4	5
2018	3,61	0,93	1	4	5
C2					
2014	4,09	0,91	1	4	5
2015	4,27	0,88	1	4	5
2016	4,15	0,97	1	4	5
2017	4,12	1,05	1	4	5
2018	4,12	1,02	1	4	5
C3					
2014	3,15	1,00	1	3	5
2015	3,24	1,12	1	4	5
2016	3,24	1,15	1	4	5
2017	3,27	1,13	1	4	5
2018	3,39	1,12	1	4	5
C4					
2014	4,12	1,41	1	5	5
2015	4,18	1,36	1	5	5
2016	4,18	1,36	1	5	5
2017	4,18	1,38	1	5	5
2018	4,33	1,31	1	5	5

Appendix 6. Distribution of the auditor's opinion in percent in the period of 2014-2018 (prepared by the author)

	2014	2015	2016	2017	2018
Adverse opinion	0	0	0	0	0
Disclaimer of opinion	0	0	0	0	0
Qualified opinion	9%	9%	6%	6%	3%
Unqualified opinion with emphases of matter	18%	18%	18%	24%	18%
Unqualified opinion	73%	73%	76%	70%	79%