Kristina Rudžionienė, Aušra Molotkevičiūtė, Rūta Klimaitienė

MICRO AND SMALL ENTERPRISES' FINANCIAL STATEMENT INFORMATION FROM THE FINANCIAL RATIO ANALYSIS PERSPECTIVE

Abstract

Purpose of the article is to evaluate the compliane, in all material respects, of the information provided in the financial statements of micro and small enterprises, from the financial ratio analysis perspective. To achieve this objective, the financial statements prepared by micro and small companies have been analyzed with regard to the form thereof, the most important ratios for micro enterprises have been determined, followed by a financial ratio analysis of micro enterprises preparing small company financial statements has been performed. It has been determined that, in all material respects, the information contained in the financial statements of small entities is complete, whereas the information presented in the financial statements of micro enterprises is incomplete. It is impossible to calculate all the main micro-enterprise ratios based on short financial statements.

It is therefore recommended that micro businesses prepare their financial statements in the form of small enterprise financial statements.

In order to survive on a competitive market, enterprises of this category need to assess their financial performance continuously and consistently. The EU and member states' declared simplification of micro-business financial reporting can prevent business decision-makers from obtaining reliable information from financial statements which is necessary and for financial analysis. The practice shows that, when the financial statement information requirements are the same for both small and micro companies, many micro businesses opt to prepare small-company financial statements, rather than statements of their business category. The existing regulation should be revised with regard to this situation.

Keywords: micro business, small business, financial statements, financial information, financial ratios.

JEL: M41, G32.



Informacje do sprawozdań finansowych mikro i małych przedsiębiorstw z perspektywy analizy wskaźników finansowych

Streszczenie

Celem artykułu jest ocena kompletności, pod każdym istotnym względem, informacji zawartych w sprawozdaniach finansowych mikro i małych przedsiębiorstw, z punktu widzenia analizy wskaźników finansowych. Aby osiągnąć ten cel, przeanalizowano formy sprawozdań finansowych sporzadzanych przez mikro i małe przedsiębiorstwa, określono najważniejsze wskaźniki dla mikro przedsiębiorstw oraz przeprowadzono analize wskaźnika finansowego mikroprzedsiebiorstwa, sporządzającego sprawozdania finansowe małych firm. Ustalono, że informacje zawarte w sprawozdaniach finansowych małych jednostek są kompletne, podczas gdy informacje zawarte w sprawozdaniach finansowych mikroprzedsiębiorstw są niekompletne we wszystkich istotnych aspektach. Obliczenie wszystkich głównych wskaźników mikroprzedsiębiorstw na podstawie krótkich sprawozdań finansowych jest niemożliwe, dlatego zaleca się, aby mikroprzedsiębiorstwa przygotowywały sprawozdania finansowe małych firm. Aby przetrwać na konkurencyjnym rynku, przedsiębiorstwa tej kategorii muszą konsekwentnie oceniać swoje wyniki finansowe. Ponieważ UE i kraje członkowskie deklarują uproszczenie sprawozdawczości finansowej dla mikroprzedsiębiorstw, uniemożliwia to decy-dentom biznesowym uzyskanie ze sprawozdań finansowych niezbędnych i wiary-godnych informacji do analizy finansowej. Jeżeli wymogi dotyczące wszystkich informacji zawartych w sprawozdaniach finansowych sa takie same w małych i mikro firmach, to praktyka pokazuje, że wiele mikro firm woli sporządzać sprawozdania finansowe małych firm niż własnej kategorii. Obowiązujące regulacje powinny zawierać ocenę tej okoliczności.

Słowa kluczowe: mikro przedsiębiorstwo, małe przedsiębiorstwo, sprawozdania finansowe, informacje finansowe, wskaźniki finansowe.

Introduction

In recent years, the importance of micro, small and medium-sized enterprises has gained increasing attention. However, it is recognised that micro enterprises are the most important, as they form the backbone of the economies of the Member States of the European Union (EU). In A Small Business Act for Europe, the European Commission put forward the principle: "Think small first". One of the objectives of the Act was to highlight the

-

¹ "Think Small First": a "Small Business Act" for Europe, 2008 m. birželio 25 d. Nr. COM(2008) 394 final, Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, Nr. SEC(2008) 2101 ir SEC(2008) 2102, Brussels 2008, p 2, avaliable

importance of small and medium-sized enterprises. Small enterprises remain important. Baumann and Kritikos point out that micro enterprises tend to make up the majority of all companies, especially in industrialised economies².

Micro and small companies are of great economic importance in each country, as this category of organisations makes up a significant proportion of the businesses operating in all EU countries and has a major impact on national economies³. According to Lithuanian Statistics, in 2020, micro and small enterprises (with the number less than 50 employees) (MSE) accounted for 84% of all active enterprises and they produced 17% of total value added, made 32% investments to fixed assets, employed 23 % of all employees, exported 10% of exported goods. They are also important taxpayers, as a large part of the revenue that national budgets raise comes from taxes paid by these companies⁴. Small companies also create a significant number of new products and thus contribute to economic development and expansion⁵. In addition, a study by the European Agency for Safety and Health at Work suggests that micro and small organisations have an indirect impact on large companies through value chains⁶. Small enterprises are business partners of large companies and have a positive impact on their performance and efficiency through the supply and distribution of products and services7. It is worth noting that a high number of micro enterprises is not only characteristic of developing countries, but also of developed and advanced countries8.

online: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52008DC03 94&from=EN [accessed: 11.06.2022].

² Baumann J., and Kritikos A. S., *The Link Between R&D, Innovation and Productivity: Are Micro Firms Different?*, "Research Policy" 2016, 45(6), pp. 1263–1274, available online: https://doi.org/10.1016/j.respol.2016.03.008 [Accessed:19.06.2022].

³ Lopriore M., Supporting Enterprise Development and SME in Europe, "EIPAScope" 2009, (2), pp. 31–36, available online: http://aei.pitt.edu/id/eprint/12383 [accessed: 10.06.2022]; Ievins J., Malahova J., Ketners K., Possibilities of Labour Protection Improvement in Micro- and Small Enterprises [In:] A. Auzina (Ed.), Economic Science for Rural Development: Proceedings of the International Scientific Conference, Lauksaimniecibas universitates, Jelgava 2016, pp. 72–78.

⁴ Pletnev D. A., Barkhatov V. I., Naumova K. A., *SME's Criteria in National Economies and Its Scale: A Comparative Study*, "Vestnik Cheliabinskogo Gosudarstvennogo Universiteta" 2021, 452(6), pp. 147–161, available online: DOI 10.47475/1994-2796-2021-10617 [accessed:10.07.2022].

⁵ Davulis G., *Mažos ir vidutinės verslo įmonės Lietuvoje bei jų makroekonominis efektyvumas,* "Studijos šiuolaikinėje visuomenėje" 2015, 6(1), pp. 175–185.

⁶ European Agency for Safety and Health at Work (EU-OSHA), Wadsworth E., Walters D., Darbuotojų saugos ir sveikatos užtikrinimo veiklos labai mažose ir mažosiose Europos Sąjungos įmonėse sąlygos ir priemonės: SESAME projektas: santrauka, Publications Office, 2016, available online: https://data.europa.eu/doi/10.2802/366689 [accessed: 19.06.2022].

⁷ Davulis G., op. cit., pp. 14–161.

⁸ Versli Lietuva, Labai mažos įmonės Lietuvoje: ekonominė reikšmė ir augimas, 2018, available online: https://www.verslilietuva.lt/wp-content/uploads/2020/01/

A number of authors also highlight the social significance of micro companies. MSE create a significant share of jobs and are important employers, employing the majority of individuals⁹. In the EU, micro enterprises are the source of employment for more than half of the population¹⁰. Davulis highlights that small companies also provide an opportunity for business founders to realise their ideas and, at the same time, to contribute to the reduction of a social problem: unemployment¹¹. Verslios Lietuvos, a study of Lithuanian micro enterprises, found that the number of employees in micro enterprises has increased significantly over the last ten years¹². Micro enterprises thus contribute to social stability by creating jobs for society and are an important part of social development¹³.

Some authors refer to the innovative dimension of micro enterprises. These enterprises are active innovators¹⁴. Baumann and Kritikos argue that a large proportion of micro-enterprises are innovators¹⁵. They invest in R&D and successfully translate this investment into innovation without falling behind larger firms. Davulis points out that different academic literatures consider around 30-60% of SMEs to be innovative and that innovativeness helps them to adapt to changing market conditions and remain flexible¹⁶. This is supported by Faherty and Stephens¹⁷, who identify the flexibility of micro enterprises as a key characteristic that allows an innovative idea to be quickly evaluated and implemented in this category of organisations. However, these authors point out that micro enterprises have small budgets and their managers are more concerned with the competitive environment than with the development of innovative strategies. Thus, although a large proportion of the smallest companies are innovative, the innovative dimension of these companies is an important but not decisive aspect of their importance.

2018.12.31- LM%C4%AE-Lietuvoje-reik%C5%A1m%C4%97-ir-augimas.pdf [accessed: 10.09.20221.

https://doi.org/10.35784/pe.2022.1.14 [accessed: 17.07.2022].

⁹ Lopriore M., op.cit., pp. 31–36; Ievins J., op.cit. pp. 72–78; Pletnev D. A., Barkhatov V. I., Naumova K. A., op.cit., pp. 147–161.

 $^{^{\}rm 10}$ European Agency for Safety and Health at Work (EU-OSHA), Wadsworth E., Walters D., op. cit.

¹¹ Davulis G., op. cit., pp. 147–161.

¹² Versli Lietuva, op. cit.

¹³ Cao Y., You J., Shi Y., Hu W., *Studies on Improving the Performance of Small and Micro Enterprises through Green Innovation*, "Problemy Ekorozwoju" 2022, 17(1), pp. 151–161, available online:

¹⁴ Ibidem; Davulis G., op. cit., pp. 147–161.

¹⁵ Baumann J., and Kritikos A. S., op. cit.

¹⁶ Davulis G, op. cit., p. 175–185.

¹⁷ Faherty U., Stephens S., *Innovation in Micro Enterprises: Reality or Fiction?*, "Journal of Small Business and Enterprise Development", 2016, 23(2), pp. 349–362, available online: https://doi.org/10.1108/JSBED-11-2013-0176 [accessed:19.06.2022].

Despite the importance of the smallest enterprises and their large number, micro enterprises face intense competition. In order to survive and consolidate their position in a competitive market, companies in these categories need to consistently assess and monitor their financial situation. One of the most effective and best methods of assessing the financial situation is the financial analysis. There is a wide range of ratios in the scientific literature. Very small enterprises have a small number of employees, a high workload and time savings, which is why these enterprises should select the most important ratios.

The analysis of the ratios is carried out using information provided by the financial statements. Simplifications are made for micro enterprises and they are allowed to prepare short financial statements. But the question is do short financial statements fulfil the qualitative features of financial information – is information provided complete in all material respects, comparable and really useful for decision-making.

Meanwhile, the possibilities of analysis of financial statements for all categories of companies and the assessment of the financial situation of micro enterprises on the basis of the information in the financial statements is mostly analysed by Mackevičius and Subačienė¹⁸. Dzikevičius and Jonaitienė, Kanapickienė and Špicas in Lithuania, Al-Hroot, Lukason, Laitinen, and Suvas, Ptak-Chmielewska and Kliestik, Valaskova, Lazaroiu, Kovacova, and Vrbka analysed the most popular or appropriate ratios for micro and small enterprises¹⁹. The choice of a set of financial statements for micro-enterprises is studied in detail in a

_

¹⁸ Mackevičius J., Subačienė R., *Labai mažų įmonių finansinės būklės analizės metodika, naudojant finansinių ataskaitų duomenis*, [In:] V. Baltrūnienė (Ed.), *Ekonomikos vystymasis: procesai ir tendencijos: IV-osios tarptautinės mokslinės- praktinės konferencijos, įvykusios Vilniaus kolegijos Ekonomikos fakultete 2017 m. balandžio 26 d., medžiaga,* Vilniaus kolegija, Vilnius 2017.

¹⁹ Dzikevičius A., Jonaitienė B., Searching for the Best Financial Fatios Evaluating Companies Operating in Different Lithuanian Sectors, "Business: Theory and Practice" 2015, 16(2), pp. 174–184, available online: https://doi.org/10.3846/btp.2015.533 [accessed: 18.07.2022]; Kanapickienė R., Špicas R., Credit Risk Assessment Model for Small and Micro-Enterprises: The Case of Lithuania, "Risks" 2019, 7(2), pp. 67-89, available online: https://doi.org/10.3390/risks7020067 [accessed:20.06.2022]; Al-Hroot Y. A., The Influence of Sample Size and Selection of Financial Ratios in Bankruptcy Model Accuracy, "Economic Review Journal of Economics and Business", 13(1), 2015, pp. 7-19; Lukason O., Laitinen E. K., Suvas A., Failure Processes of Young Manufacturing Micro Firms in Europe, "Management Decision" 2016, 54(8), available online: https://doi.org/10.1108/MD-07-2015-0294 [accessed:10.06.2022]; Ptak-Chmielewska A., Predicting Micro-Enterprise Failures Using Data Mining Techniques, "Journal of Risk and Financial Management" 2019, 12(1), pp. 30-46, available online: https://doi.org/ 10.3390/jrfm12010030 [accessed:10.07.2022]; Kliestik T., Valaskova K., Lazaroiu G., Kovacova M., Vrbka J., Remaining Financially Healthy and Competitive: the Role of Financial Predictors, "Journal of Competitiveness" 2020, 12(1), pp. 74-92, available online: https://doi.org/10.7441/joc.2020.01.05 [accessed:20.06.2022];

research paper by Lithuanian authors Balkytė, Kvekšienė and Striaukaitė²⁰. Among the other authors analysing the main features of financial information, it is worth mentioning Gandziuk Grigoras-Ichim and Morosan-Danila²¹. But the completeness of information provided in Lithuanian financial statements for micro enterprises is not analysed. Herefore, the *purpose of the article* is to evaluate the completeness in all material respects of the information provided in the financial statements of micro and small enterprises from financial ratio analysis perspective. Here, Lithuania can be taken as an example (case) of EU member state to show the regulation tendencies and problems for micro and small enterprises.

Theoretical background

The decision usefulness theory states that the best accounting standards is one that supplies the most useful financial information to the users of that information as they make their decisions²². While, since 2006, the International Accounting Standards Board (IASB) has held decision-usefulness to be the primary objective of financial reporting, the requirements for financial statement information set out in International Accounting Standard (IAS) 1 (2010) are usefulness to users (users' decision-making), completeness in all material respects and reliability²³.

Lapitkaia and Leahovcenco argue that disclosures should focus on materiality²⁴. IAS 1 (2010) states that information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity. According to Gandziuk, as information influences consumer decision-making, all material information must be presented in the reports, taking into

²⁰ Balkytė G., Kvekšienė M., Striaukaitė L., *Compliance of Financial Statements of Small and Very Small Companies with the Provisions of Business Accounting Standards*, "Social Research" 2020 43(2), pp. 5–14, avaliable online: https://doi.org/10.21277/st.v43i2. 314 [accessed:11.06.2022].

²¹ Gandziuk O., *The Financial Statements of User Requirements*, "Baltic Journal of Economic Studies" 2016, 2(2), pp. 24–31, available online: DOI: 10.30525/2256-0742/2016-2-2-24-31 [accessed: 19.06.2022]; Grigoras-Ichim C. E., Morosan-Danila L., *Hierarchy of Accounting Information Qualitative Characteristics in Financial Reporting*, "The USV Annals of Economics and Public Administration", 2016, 16(1(23)), pp. 183–191.

²² Cordery C. J., Sinclair R. M. S., *Decision-Usefulness and Stewardship As Conceptual Framework Objectives: Continuing Challenges*, February 16, 2016, avaliable online: https://ssrn.com/abstract=2918784 [accessed: 17.07.2022].

²³ International Accounting Standard (IAS) 1, 2010, available online: https://www.iasplus.com/en/standards/ias/ias1 [accessed:20.07.2022].

²⁴ Lapitkaia L., Leahovcenco A., *Requirements for The Disclosure of Financial Information for SMES in Accordance With European and National Legislation*, "CSIE Working Papers Series", 2018, (8), pp. 21–28.

account the needs of consumers 25 . An entity shall present separately each material class of similar items. An entity shall present separately items of a dissimilar nature or function unless they are immaterial 26 .

Jianu and Jianu consider reliability to be one of the most important attributes of the information presented in financial statements. According to Gandziuk, information is reliable when it is presented without errors and is not misleading²⁷. According to the author, information should correctly and accurately reflect transactions and other economic transactions and be neutral. Neutrality is highlighted as one of the characteristics of reliable information. Grigoras-Ichim and Morosan-Danila argue that information is considered to be neutral when it reflects the true situation of the firm without improving or worsening the current situation²⁸. These authors also identify verifiability and accurate presentation as characteristics of reliable information. They define verifiability as the ability to ensure that the information is free from error. Meanwhile, accurate presentation is associated with completeness. This means that reliable financial statements must contain all the information necessary for users to make decisions.

According to Gandziuk and Grigoras-Ichim and Morosan-Danila, the information in the accounts is comprehensible to its users if it is clearly disclosed²⁹. Grigoras-Ichim and Morosan-Danila point out that financial statement data should be presented in a way that is comparable with data from entity's financial statments of previous periods or with relevant financial information from other entities. Gandziuk adds that comparability helps users of information to assess trends in a company's financial position and performance³⁰.

Therefore, the materiality, comparability, completeness, reliability and usefulness to decision-makers of the disclosed information of each entity are particularly important features because users make decisions based on the information in the financial statements.

The company's financial performance is of great importance to shareholders and investors³¹. Financial analysis is used to assess these results and the overall

_

²⁵ Gandziuk O., op. cit.

²⁶ International Accounting Standard (IAS) 1, 2010, available online:

https://www.iasplus.com/en/standards/ias/ias1 [accessed: 20.07.2022].

²⁷Jianu I. Jianu I., *Reliability of Financial Information from the Perspective of Benford's Law*, "Entropy" 2021, 23(5), pp. 557–579, available online: https://doi.org/10.3390/e23050557 [accessed: 20.07.2022];

Gandziuk O., op. cit.

²⁸ Grigoras-Ichim C. E., Morosan-Danila L., op. cit., pp. 183–191.

²⁹ Gandziuk O., op. cit.; Grigoras-Ichim C. E., Morosan-Danila L., op. cit., pp. 183–191.

³⁰ Ibidem.

³¹ Mbona R. M., Yusheng K., Financial Statement Analysis: Principal Component Analysis (PCA) Approach Case Study on China Telecoms Industry, "Asian Journal of Accounting

situation of the company. The information provided by accounting and financial analysis is the basis for decision-making³². Financial analysis is useful to a company in many ways. It is worth noting that financial analysis involves not only examining past and present data, but also assessing likely future trends³³. In addition, the analysis helps to understand whether the company is using its financial resources efficiently when generating revenue³⁴.

The most important source of information for financial analysis is the financial statements³⁵. It is therefore essential that the information in the financial statements is reliable³⁶.

Several types of financial analysis can be carried out using financial statements. Ignasiak-Szulc, Juščius, and Bogatova argue that the most important types of financial analysis are horizontal, vertical, and relative (ratio) analyses³⁷. Ignasiak-Szulc et al. point out that horizontal analysis does not analyse the reasons for changes in items and its results do not allow conclusions to be drawn about the overall result achieved³⁸. According to Barakat and Yalcintas, vertical analysis refers to the relationship of sub-items in the financial statements to a specific underlying item as a percentage of that underlying item³⁹. According to Ignasiak-Szulc et al., vertical analysis allows assumptions

Research" 2019, 4(2), pp. 233–245, available online: https://doi.org/10.1108/AJAR-05-2019-0037 [accessed: 10.08.2022].

³² Hasanaj P., Kuqi B., *Analysis of Financial Statements: the Importance of Financial Indicators in Enterprise*, "Humanities and Social Science Research" 2019, 2(2), pp. 17–27, available online: https://doi.org/10.30560/hssr.v2n2p17 [accessed: 19.06.2022].

³³ Hasanai P., Kuqi B., op. cit.

³⁴ Zelgalve E., Zaharčenko A., *Transformation of the Role of Financial Analysis in Enter-prise Management*, "Management of Organizations: Systematic Research" 2012, (64), pp. 147–167, available online: https://doi.org/10.7220/MOSR.1392.1142.2012. 64.10 [accessed: 10.09.2022].

³⁵ Lia D. A. Z., Natswa S. L., *Assessment of Financial Ratio Analysis for Evaluation of Small Medium Enterprises (SME) Performance (Study on IRT Ramayana Agro Mandiri Batu City 2016-2019)*, "International Journal of Multicultural and Multireligious Understanding" 2021, 8(8), pp. 202–217, available online: https://doi.org/10.18415/ijmmu.v8i8.2889 [Accessed:20.06.2022]; Mackevičius J., Subačienė R., op.cit.; Marioara A., *The Role of the Annual Financial Statements in the Management of the Company*, "Analele Universitatii Constantin Brancusi Din Targu Jiu: Seria Economie" 2013, 1(1), pp. 13–18; Mbona R. M., Yusheng K., op. cit. pp. 82–95.

³⁶ Mackevičius J., Valkauskas R., *The Method for Setting the Reliability of Financial Analysis Information*, "Information & Media" 2016, 76, pp. 82–95, available online: https://doi.org/10.15388/Im.2016.76.10383_[accessed: 10.08.2022].

³⁷ Ignasiak-Szulc A., Juščius V., Bogatova J., *Economic Evaluation Model of Seaports' Performance Outlining Competitive Advantages and Disadvantages*, "Inžinerinė Ekonomika" 2018, 29(5), pp. 571–579, available online: https://doi.org/10.5755/j01.ee.29.5.21363 [accessed: 20.07.2022].

³⁸ Ignasiak-Szulc A., Juščius V., Bogatova J., op. cit., pp. 571–579.

³⁹ Barakat S., Yalcintas M., *Use of the Financial Statements in the Management of a Company's Financial Crisis: a Case Study from Jordan*, "Istanbul Ticaret Universitesi

to be made about the reasons for changes in certain items⁴⁰. Meanwhile, relative (or ratio) analysis is identified by these authors as the best and fastest method to obtain the most relevant information.

The analysis of ratios is identified as the most important type of financial analysis by most authors⁴¹. Ignasiak-Szulc et al. argue that relative indicators are much more important and obvious than absolute indicators⁴². Kliestik et al. point out that ratios also help to assess the soundness of a company and to identify and eliminate potential financial risks for stable development⁴³. Collier points out that these ratios provide meaningful information when compared with the company's historical performance⁴⁴, competitors' performance, industry averages or the company's own predefined targets. According to this author, the comparison helps to understand the trend in the organisation's performance and the areas for improvement.

Research sources and methodology

For evaluating the completeness in all material respects of the information provided in the financial statements of micro and small enterprises is taken the state and company case analysis. State analysis is performed using the set of financial statements of one EU state member – Lithuania, and presenting the financial analysis in one micro company.

Directive 2013/34/EU of the European Parliament and of the Council was adopted in 2013⁴⁵. The Law on Corporate Financial Reporting of the Republic of Lithuania (from 1 May 2022, the name of this law is the Law on Corporate Reporting) was changed and the new version of the Law started to apply from 2016. Thus, the current Law distinguishes four different categories of companies based on the balance sheet value of assets, annual revenue and number of employees (Table 1) and their statements. Here it should be stated that the European Commission Recommendation 2003/361/EC identifies

Sosyal Bilimler Dergisi" 2020, 19(39), pp. 1246–1264, avaliable online: https://doi.org/10.46928/iticusbe.792328 [accessed: 11.06.2022].

⁴⁰ Ignasiak-Szulc A., Juščius V., Bogatova J., op. cit., pp. 571–579.

⁴¹ Hasanaj P., Kuqi B., op.cit.; Kliestik T., Valaskova K., Lazaroiu G., Kovacova M., Vrbka J., op.cit., pp. 74–92; Lia D. A. Z., Natswa S. L., op.cit.; Mbona R. M., Yusheng K., op. cit. pp. 82–95.

⁴² Ignasiak-Szulc A., Juščius V., Bogatova J., op. cit., pp. 571–579.

⁴³ Kliestik T., Valaskova K., Lazaroiu G., Kovacova M., Vrbka J., op. cit., pp. 74-92.

⁴⁴ Collier P. M., *Accounting for Managers: Interpreting Accounting Information for Decision Making*, (5th ed.), John Wiley & Sons, Hoboken 2015.

⁴⁵ Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC, available online: EUR-Lex - 02013L0034-20141211 - EN - EUR-Lex (europa.eu) [accessed: 17.07.2022].

three categories of enterprises using different values of total assets and revenue. According to the EU Recommendation, the value of the assets and/or net revenue of a micro enterprise must not exceed EUR 2 million⁴⁶. Only the number of employees of an enterprise has the same value identifing the category of company in EU and Lithuania.

Table 1. Categories of companies and their statements in Lithuania.

Indicators and	Company's size			
statements	Micro	Small	Medium	Large
Total assets (Eur)	≤ 350 000	≤ 4 000 000	≤ 20 000 000	> 20 000 000
Annual revenue (Eur)	≤ 700 000	≤ 8 000 000	≤ 40 000 000	> 40 000 000
Number of employees	≤ 10	≤ 50	≤ 250	> 250
Balance Sheet	+ short	+ shortened	+	
Income (loss) statement	+ short	+	+	
Statement of cash flows	_	+/-	+	
Statement of changes in equity	_	+/-	+	
Explanatory notes	_	+	+	
Annual report	_	_	+	

Source: made by authors according to the The Law on Corporate Financial Reporting of the Republic of Lithuania (2001).

The number of employees is the main indicator used by researchers. According to Houston and Reuschke⁴⁷, a micro enterprise is generally understood as an enterprise with fewer than 10 employees. Similarly, Pletnev et al., after analysing the classification of enterprises according to national legislation in

⁴⁷ Houston D., Reuschke D., *City Economies and Microbusiness Growth*, "Urban Studies" 2017, 54(14), pp. 3199–3217, available online: https://doi.org/10.1177/0042098016 680520 [accessed: 19.06.2022].

⁴⁶ Commission Recommendation of 6 May 2003 Concerning the Definition of Micro, Small and Medium-sized Enterprises, 2003 m. gegužės 6 d. Nr. 2003/361/EC, "Official Journal of the European Union" 2003, Nr. L 124, available online: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2003:124:FULL&from=EN [accessed: 17.07.2022].

more than 70 countries on different continents, found that the main criterion for classifying the size of enterprises, and the one that is the most similar in the countries analysed, is the number of employees 48 . It was found that if the number of employees is until 10, the enterprise is classified as a micro enterprise, while if the number of employees is between 10 and 50, the enterprise is generally classified as a small enterprise. Thus, the further analysis uses this indicator of the categorisation of enterprises where companies which have less than 10 employees are named micro enterprises, companies with 10-50 employees are named small, and together they consider micro and small enterprises (further MSE).

The Law on Financial Accounting of the Republic of Lithuania (2001) requires that all companies should keep accounting with double entry, except entities with unlimited civil liability which are not value added tax payers and which do not have any employees in the accounting year and in the previous financial year⁴⁹. They can choose the simple record for accounting. Therefore, only sole proprietorships and partnerships, which revenue are less than 45 000 Euros (are not required to be registered value added tax payers) and don't have employees can keep simplyfied accounting. But all Lithuanian companies must maintain their accounting records in such a way as to enable them to prepare their financial statements in accordance with Lithuanian or International Financial Reporting Standards. Thus, each enterprise is required to prepare a set of financial statements for its financial year in accordance with its accounting policies (chosen system of accounting standards: limited liability companies choose between International or Lithuanian Financial Reporting Standards, and sole proprietorships and partnerships choose between International, all Lithuanian Financial Reporting Standards or one Lithuanian accounting standard for sole proprietorships and partnerships). All forms of requied financial statements are presented in accounting standards and should be followed by all companies without any changes in rows.

As shown in table 1, the set of financial statements for micro enterprises is the shortest: it must include a short balance sheet and a short income and loss statement. If micro companies have financial commitments and guarantees not disclosed in the balance sheet, long-term reward plans, advances and loans received by the company's directors and members of the management and supervisory bodies, the number of treasury shares held, their nominal value and their share in the share capital, the payment of treasury shares, treasury shares disposed of and acquired and the reasons for acquisition during the period, they should disclose the detailed information in annual report or under

-

⁴⁸ Pletnev D. A., Barkhatov V. I., Naumova K. A., op.cit., pp. 147–161.

⁴⁹ Lietuvos Respublikos finansinės apskaitos įstatymas, 2001 m. lapkričio 6 d. Nr. IX-574. Valstybės žinios, 2001, Nr. 99-3515, available online: https://e-seimas.lrs.lt/portal/legalActEditions/lt/TAD/TAIS.154657 [accessed: 20.06.2022].

the short balance sheet⁵⁰. Small companies are required to draw up a shortened balance sheet, an Income (loss) statement and annual report. Statements of cash flows and changes of equity are not required to prepare by small companies, but they can be presented together. The information to be disclosed by micro-enterprises below the balance sheet must be disclosed by small enterprises in the annual report⁵¹. Medium-sized and large enterprises shall draw up a complete set of financial statements.

Acording to accounting and financial reporting laws, SME may choose not to apply the simplifications provided for them. In this case, micro-entities are required to prepare a set of financial statements that is mandatory for small entities, while small entities may choose to prepare statements of cash flows and changes in equity. Thus, small enterprises can choose which set of financial statements to prepare based on their needs and capabilities.

The research is carried out using a qualitative case study approach. According to Kardelis, qualitative research does not aim to test hypotheses, but to answer questions by analysing a situation and finding an explanation⁵². Moreover, as Quintao et al. argue, a case study is a comprehensive and sequential research approach that involves planning, data collection and analysis⁵³. Thus, the choice of case study for qualitative research was based on its suitability for this research. It will seek to answer an open question by interpreting the data from the analysis of the relative indicators of the financial statements of a specific company which represent all SME as their financial statements are regulated by laws and are the same.

The study uses the 2020 financial statements of small partnership (SP) "X" – a company operating in Lithuania, whose main activity is the production of labels. It was established and started its activities just over 2 years ago. In 2020, the average number of employees of SP "X" was 3. The value of the assets on the company's balance sheet and the annual net sales revenue are also below the upper limits of the indicators for the smallest category of companies. In 2020, the value of the company's assets was less than EUR 350 000 and its revenue did not exceed EUR 700 000. Consequently, the values of all the indicators used to categorise companies show that SP "X" is a micro enterprise. It is also a manufacturing organisation and has stocks, which makes it possible to calculate more relative ratios.

51 Ibidem.

⁵⁰ Ibidem.

⁵² Kardelis K., *Mokslinių tyrimų metodologija ir metodai: edukologija ir kiti socialiniai mokslai: vadovėlis (5-asis patais. ir papild. leid.)*, Mokslo ir enciklopedijų leidybos centras, Vilnius 2016.

⁵³ Quintao C., Andrade P., Almeida F., *How to Improve the Validity and Reliability of a Case Study Approach*, "Journal of Interdisciplinary Studies in Education" 2020, 9(2), pp. 274–285, available online: https://ojed.org/jise [accessed: 10.07.2022].

For evaluating the completeness in all material respects of the information provided in the financial statements of SME it would be performed financial analysis of financial ratios. Accounting-based financial ratios are grouped: profitability, turnover, leverage and solvency⁵⁴.

According to Lukason et al., Blanco-Oliver et al., Mackevičius ir Subačienė, Ptak-Chmielewska, Kanapickienė ir Špicas, Pavlovič et al., Ansari et al., Ibrahim and Isiaka, Zimon et al., who identified the most important financial ratios for MSE, there were selected the main ratios that should be calculated for SME in this research and practice (table 2)⁵⁵.

_

⁵⁴ Baranes A., Palas R., Shnaider E., Yosef A., *Identifying Financial Ratios Associated with Companies' Performance Using Fuzzy Logic Tools*, "Journal of Intelligent and Fuzzy Systems" 2021, 40(1), pp. 117–129, available online: DOI: 10.3233/JIFS-190109 [Accessed: 17.06.2022]; Carreras-Simo M., Coenders G., *Principal Component Analysis of Financial Statements. A Compositional Approach*, "Revista de Metodos Cuantitativos Para La Economia y La Empresa" 2020, 29, pp. 18–37, available online: https://www.upo.es/revistas/index.php/RevMetCuant/article/view/3580/3930_[accessed: 17.07.2022]; Lia D. A. Z., Natswa S. L., op.cit.; Widarti W., Desfitrina D., Zulfadhli Z., *Business Process Life Cycle Affects Company Financial Performance: Micro, Small, and Medium Business Enterprises during the Covid-19 Period*, "International Journal of Economics and Financial Issues" 2020, 10(5), pp. 211–219, available online: https://doi.org/10.32479/ijefi.10516 [accessed: 10.09.2022].

⁵⁵ Blanco-Oliver A., Irimia-Dieguez A., Oliver-Alfonso M. D., Vazquez-Cueto M. J., Hybrid Model Using Logit and Nonparametric Methods for Predicting Micro- Entity Failure, "Investment Management and Financial Innovations" 2016 13(3), pp 35-46, available online: https://doi.org/10.21511/imfi.13(3).2016.03 [Accessed:17.06.2022]; Ibrahim U. A., Isiaka A., Working Capital Management and Financial Performance of Non Financial Quoted Companies in Nigeria, "International Journal of Research In Business and Social Science" 2021, 10(3), pp. 241–258, available online: https://doi.org/10.20525/ ijrbs.v10i3.1116 [Accessed:20.07.2022]; Ansari Z., Hejazi R., Zeraatkish Y., Abadi Z. K. M., Financial Performance Evaluation of Companies Using Decision Trees Algorithm and Multi-Criteria Decision- Making Techniques with an Emphasis on Investor's Risk-Taking Behavior, "Advances in Mathematical Finance and Applications" 2021, 6(3), pp. 1–12, avaliable online: https://doi.org/10.22034/amfa.2020.1897171.1405 [accessed: 11.06. 2022]; Lukason O., Laitinen E. K., Suvas A., op. cit.; Pavlovič M., Radoičič J., Milanovič M., Profitability Analysis of Apple Production in the Republic of Serbia, "Ekonomika Poljoprivrede" 2020, 67(3), pp. 817-830, available online: https://doi.org/10.5937/ ekoPolj2003817P [accessed: 10.06.2022]; Ptak-Chmielewska A., op. cit., pp. 30-46; Zimon G., Nakonieczny J., Chudy-Laskowska K., Wojcik-Jurkiewicz M., Kochanski K., An Analysis of the Financial Liquidity Management Strategy in Construction Companies *Operating in the Podkarpackie Province*, "Risks" 2022, 10(5), pp. 5–19, available online: https://doi.org/10.3390/risks10010005 [accessed: 10.09.2022].

Table 2. SME main financial ratios and their formulaes.

	Financial ratio	Formula	
ıncy	Current ratio	Current assets/current liabilities	
	Quick ratio	(Current assets – Inventories)/ current liabilitie	
	Cash ratio	Cash and near cash items/ current liabilities	
Solvency	Working capital to assets ratio	(Current assets – Current liabilities)/Assets	
	Debt ratio	Liabilities/Assets	
	Equity to liabilities ratio	Equity/Liabilities	
Profitability	ROA	Net profit/Assets	
	ROE	Net profit/Equity	
	Gross profitability	Gross profit/Revenue	
	Net profitability	Net profit/Revenue	
٨t.	Turnover of assets	Revenue/Assets	
Efekt.	Turnover of inventories	Costs of goods sold/Inventories	

Source: made by authors based NASDAQ OMX Vilnius, 2010, p. 11–14, 19–20, 23, 28, 32, 36; and Mackevičius and Subačienė, 2017, p. 206.

The literature review has identified the most commonly cited and recommended ratios for the analysis of MSE. According to Mackevičius and Subačienė, the best way to determine the financial position of micro companies is to calculate and assess 10 to 15 selected relative ratios (profitability and solvency)⁵⁶. In addition, as mentioned above, Lukason et al. argue that the majority of companies at risk of bankruptcy can be identified by poor values of profitability and solvency ratios⁵⁷. This is also supported by Obradovic, Mizdrakovic, and Obradovic, who found in their study that around 99% of bankrupt companies had solvency problems⁵⁸. Therefore, since it is important for micro enterprises to survive in a competitive business environment and to

⁵⁷ Lukason O., Laitinen E. K., Suvas A.,op.cit.

⁵⁶ Mackevičius J., Subačienė R., op.cit.

⁵⁸ Obradovič A., Mizdrakovič V., Obradovič M., *Liquidity and Solvency of Healthy and Bankrupt Entities: Do Financial Statements Show Any Differences?*, "International Review" 2020 (3–4), available online: DOI: 10.5937/intrev20031230 [accessed: 10.06. 2022].

avoid bankruptcy, they need to pay particular attention to the profitability and solvency ratios.

Research results

Performing the state analysis, it is appropriate to analyse the structure of the financial statements for MSE in Lithuania, as the financial analysis uses the financial statements and the information they contain.

A comparison of the MSE short and shortened balance sheet forms is shown in table 3. The shortened balance sheet is more detailed than the short balance sheet. The differences are apparent in the fixed assets, current assets and equity items. The short balance sheet distinguishes fixed assets only between tangible assets and other fixed assets, while the shortened balance sheet distinguishes, in addition to the items already mentioned, intangible assets and financial assets. The short balance sheet divides current assets into inventories and other current assets, while the current assets section of the shortened balance sheet includes inventories, receivables, short-term investments and cash and cash equivalents. Equity of MSE is not detailed and the short balance sheet presents a single total amount of equity, while the shortened balance sheet breaks down equity into the categories of share capital, share premium, revaluation reserve, reserves and retained earnings (loss).

Table 3. The comparison of short and shortened forms of balance sheet of MSE in Lithuania.

SHORT BALANCE	SHORTENED		
SHEET	BALANCE SHEET		
ASSETS	ASSETS		
FIXED ASSETS	FIXED ASSETS		
	Intangible assets		
Tangible assets	Tangible assets		
Other fixed assets	Financial assets		
	Other fixed assets		
CURRENT ASSETS	CURRENT ASSETS		
Inventory	Inventory		
	Short-term		
	receivables		
Other short-term	Short-term		
assets	investments		
	Cash		
PREPAYMENTS	PREPAYMENTS		
AND ACCRUED	AND ACCRUED		
EXPENSES	EXPENSES		
TOTAL ASSETS	TOTAL ASSETS		

EQUITY AND	EQUITY AND	
LIABILITIES	LIABILITIES	
	EQUITY	
	Share capital	
	Share premium	
EQUITY	Revaluation	
	reserve	
	Reserves	
	Retained earnings	
	(loss)	
GRANTS,	GRANTS,	
SUBSIDIES	SUBSIDIES	
PROVISIONS	PROVISIONS	
ACCOUNTS	ACCOUNTS	
PAYABLE AND	PAYABLE AND	
OTHER	OTHER LIABILITIES	
LIABILITIES		
Long-term liabili-	Long-term liabili-	
ties	ties	
Short-term liabili-	Short-term liabili-	
ties	ties	
ACCRUALS AND	ACCRUALS AND	
DEFERRED	DEFERRED	
REVENUE	REVENUE	
TOTAL EQUITY	TOTAL EQUITY	
AND LIABILITIES	AND LIABILITIES	

Source: made by authors based on 2 Lithuanian Accounting Standard, 2015, p. 12–15.

Compared short and shortened forms of MSE profit (loss) statements is shown in table 4. Both forms have only three identical items: sales revenue, income tax and net profit (loss). In general, the short profit (loss) statement shows only sales revenue and other income, while the shortened profit (loss) statement distinguishes between sales, investments in company shares, loans, interest and other similar revenues. The short form of the statement also includes purchases of inventories and consumption of resources and changes in inventory, but the shortened form does not include such items. In addition, as Kanapickienė and Špicas point out, for micro enterprises, the profit (loss) statement does not distinguish between cost of sales, distribution and general

and administrative expenses⁵⁹. Costs are reported here by nature (employment-related costs, depreciation, amortisation and impairment of assets and other costs) rather than by purpose.

Table 4. The comparison of short and shortened forms of profit (loss) statement of MSE in Lithuania.

SHORT INCOME (LOSS) STATEMENT	SHORTENED INCOME (LOSS) STATEMENT
Sales revenues	Sales revenue
Other revenues	Cost of goods sold
Inventories purchased and resources consumed	Change in fair value of biological assets
Change in inventories	Gross profit (loss)
Staff costs	Distribution costs
Depreciation, amortisation and impairment	Administrative expenses
Other expenses	Other operating income
	Income from participating interests
	Income from other investments and loans
	Other interest receivable and similar income
	Value adjustments of financial assets and short- term investments
	Interest payable and similar expenses
	PROFIT (LOSS) BEFORE TAX
Income tax	Income tax
Net profit (loss)	Net profit (loss)

Source: made by authors based on 3 Lithuanian Accounting Standard, 2015, p. 7-8.

Key financial ratios were calculated based on the available short balance sheet and profit (loss) statement of SP "X" (table 6).

_

⁵⁹ Kanapickienė R., Špicas R., op. cit.

Table 6. Results of financial ratios' calculations.

	Financial ratios	Formulas	Calculation	Value	From short statements
Solvency	Current ratio	Current Assets/ Current Liabilities	23530/4093	5,75	+
	Quick ratio	(Cash and Near Cash + Short Term Investments + Account Receivables)/ Current Liabilities	(23530 – 3189)/4093	4,97	+
	Cash ratio	(Cash and Near Cash Items + Mrktable Sec and Other ST Invts)/ Current Liabilities	-	-	-
	Working capital to assets ratio	(Current Assets – Current Liabilities)/ Assets	(23530 – 4093)/29963	0,65	+
	Debt ratio	Total Liabilities / Total Assets	4735/29963	0,16	+
	Equity to liabilities ratio	Equity/Liabilities	25228/4735	5,33	+
	ROA	Net profit/Assets	16439/29963	54,86 %	+
Profitability	ROE	Net profit/Equity	16439/25228	65,16 %	+
	Gross profitability	Gross profit/Revenue	-	-	-
	Net profitability	Net profit/Revenue	16439/65514	25,09 %	+
Efect.	Turnover of assets	Revenue/Assets	65514/29963	2,19	+
	Turnover of inventories	Costs/Inventories	-	-	_

Source: calculated by authors.

The cash ratio, gross profitability and turnover of inventories cannot be calculated on the basis of the financial information in the short balance sheet and profit (loss) statement of MSE because these statements do not have required items. It means that the financial information in the short forms of financial statements is not complete in all material respects. Thus, a MSE that chooses to prepare short set of financial statements would not be able to assess its cash ratio, gross profitability and turnover of inventories without the use of sub-accounts. If micro enterprise choose to prepare a set of financial

statements for small companies it would have the ability to calculate and measure all the relative profitability, turnover and solvency ratios that are most important for micro enterprises.

Financial statements of SP "X" is an example of financial statements of all micro companies in Lithuania because the stated forms of financial statements are mandatory for all micro companies, then problems to calculate well-known financial ratios to make financial analysis for many purposes arise for all micro companies. Therefore, we may conclude that micro companies are more likely to experience financial difficulties in their daily life because of the absence of detailed control.

Other results of relative research of practice in micro companies shows this problem. A study by Balkytė et al. found that micro enterprises often choose to opt out of the exemptions provided to them and to prepare more complete sets of financial statements⁶⁰. The authors examined the compliance of the 26 MSE financial statements with the provisions of IAS. It was revealed that 10 companies (38%) opted for the permitted exemptions and the remaining 16 companies (62%) did not apply the simplifications: 1 prepared a full set of financial statements and 8 enterprises prepared the forms of financial statements for small companies. The Accounting, Auditing, Asset Valuation and Insolvency Policy Department of the Ministry of Finance (2018) surveyed 65 organisations, of which 69% were in the micro enterprise category and identified a short profit (loss) statement as one of the difficulties encountered in accounting⁶¹. Thus, both surveys together suggest that micro enterprises that do not benefit from the possible simplifications tend to prepare a set of financial statements for small enterprises because of the greater clarity of the preparation and the complete in all material respects information for financial analysis.

Conclusions

MSE are of major economic and social importance. In terms of financial accounting regulations, certain simplifications are granted to MSE: they can prepare a short profit (loss) statement and a short balance sheet as EU regulation let to all EU member states. The most important of these are completeness in all material respects, materiality, reliability and usefulness to users for decition-making process.

The analysis of ratios is identified by most researchers as the best and quickest method of financial analysis. It provides reliable data for assessing the financial health of an enterprise. On the basis of the ratios recommended by researchers

-

⁶⁰ Balkytė G., Kvekšienė M., Striaukaitė L., op. cit.

⁶¹ Accounting, Auditing, Asset Valuation and Insolvency Policy Department of the Ministry of Finance, 2018, avaliable online: Del-VAS-taikymo-palengvinimo.pdf (lrv.lt) [accessed: 11.06.2022].

and the characteristics of the smallest companies, it has been found that micro enterprises should calculate and assess the following ratios: current, critical, cash, debt ratios and working capital to assets ratio, equity to liabilities ratio, return on assets and return on equity (ROA and ROE), gross and net profitability, turnover of assets and turnover of inventories.

The case analysis of state which as EU member regulate forms of financial statements showed that short forms for micro companies and shortened forms for small companies in Lithuania are different. Short balance sheet have not intangible assets, financial assets, receivables, cash rows, all equity items are presented in one single total amount of equity. While short and shortened profit (loss) statements differ very significantly because the costs and revenues are reported here by nature (employment-related costs, depreciation, amortisation and impairment of assets and other costs) rather than by purpose in the form for micro enterprises. Both forms have only three identical items: sales revenue, income tax and net profit (loss). The short profit (loss) statement shows only sales revenue and other income, while the shortened profit (loss) statement distinguishes between sales, investments in company shares, loans, interest and other similar revenues. The short form of the statement also includes purchases of inventories and consumption of resources and changes in inventory, but the shortened form does not include such items.

The case analysis of micro company showed that the disclosures in the financial statements of small enterprises are indeed complete, whereas those of micro enterprises are not complete in all material respects. The information in the financial statements of the small enterprise category is sufficient to calculate the main financial ratios, whereas the information in the financial statements of micro enterprises does not allow the calculation of cash ratio, gross profitability and turnover of inventories ratios. The main problem with micro enterprises is that, although this category of enterprises could benefit from the simplifications allowed to them, prepare short financial statements and analyse the key ratios on the basis of these statements, they tend to opt for a set of financial statements in the small enterprise category for unclear reasons. If management of the company wants to asses its financial position (calculating and exploring the main financial ratios), it is therefore recommended that micro enterprises should prepare a set of financial statements for small enterprises.

References

1. "Think Small First": a "Small Business Act" for Europe, 2008 m. birželio 25 d. Nr. COM(2008) 394 final, Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, Nr. SEC(2008) 2101 ir SEC(2008) 2102, Brussels 2008, avaliable online: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52008DC0394& from=EN [accessed: 11.06.2022].

- 2. Accounting, Auditing, Asset Valuation and Insolvency Policy Department of the Ministry of Finance, 2018, avaliable online: Del-VAS-taikymo-palengvi nimo.pdf (lrv.lt) [accessed: 11.06.2022].
- 3. Al-Hroot Y. A., *The Influence of Sample Size and Selection of Financial Ratios in Bankruptcy Model Accuracy*, "Economic Review Journal of Economics and Business", 13(1), 2015.
- 4. Ansari Z., Hejazi R., Zeraatkish Y., Abadi Z. K. M., Financial Performance Evaluation of Companies Using Decision Trees Algorithm and Multi-Criteria Decision- Making Techniques with an Emphasis on Investor's Risk-Taking Behavior, "Advances in Mathematical Finance and Applications" 2021, 6(3), avaliable online: https://doi.org/10.22034/amfa.2020.1897171. 1405 [accessed: 11.06.2022].
- 5. Balkytė G., Kvekšienė M., Striaukaitė L., Compliance of Financial Statements of Small and Very Small Companies with the Provisions of Business Accounting Standards, "Social Research", 2020 43(2), avaliable online: https://doi.org/10.21277/st.v43i2.314_[accessed: 11.06.2022].
- 6. Barakat S., Yalcintas M., *Use of the Financial Statements in the Management of a Company's Financial Crisis: a Case Study from Jordan*, "Istanbul Ticaret Universitesi Sosyal Bilimler Dergisi" 2020, 19(39), avaliable online: https://doi.org/10.46928/iticusbe.792328 [accessed: 11.06.2022].
- 7. Baranes A., Palas R., Shnaider E., Yosef A., *Identifying Financial Ratios Associated with Companies' Performance Using Fuzzy Logic Tools*, "Journal of Intelligent and Fuzzy Systems" 2021, 40(1), available online: DOI: 10.3233/JIFS-190109 [accessed: 17.06.2022].
- 8. Baumann J., and Kritikos A. S., *The Link Between R&D, Innovation and Productivity: Are Micro Firms Different?*, "Research Policy" 2016, 45(6), available online: https://doi.org/10.1016/j.respol.2016.03.008 [accessed: 19.06.2022].
- 9. Blanco-Oliver A., Irimia-Dieguez A., Oliver-Alfonso M. D.,Vazquez-Cueto M. J., *Hybrid Model Using Logit and Nonparametric Methods for Predicting Micro- Entity Failure,* "Investment Management and Financial Innovations" 2016, 13(3), available online: https://doi.org/10.21511/imfi.13(3).2016. 03 [accessed: 17.06.2022].
- 10. Cao Y., You J., Shi Y., Hu W., *Studies on Improving the Performance of Small and Micro Enterprises through Green Innovation*, "Problemy Ekorozwoju" 2022, 17(1), available online: https://doi.org/10.35784/pe.2022.1.14 [accessed: 17.07.2022].
- 11. Carreras-Simo M., Coenders G., *Principal Component Analysis of Financial Statements. A Compositional Approach*, "Revista de Metodos Cuantitativos Para La Economia y La Empresa" 2020, 29, available online:

- https://www.upo.es/revistas/index.php/RevMetCuant/article/view/358 0/3930_[accessed: 17.07.2022].
- 12. Collier P. M., *Accounting for Managers: Interpreting Accounting Information for Decision Making*, (5th ed.), John Wiley & Sons, Hoboken 2015.
- 13. Commission Recommendation of 6 May 2003 Concerning the Definition of Micro, Small and Medium-sized Enterprises, 2003 m. gegužės 6 d. Nr. 2003/361/EC, "Official Journal of the European Union" 2003, Nr. L 124, available online: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=0J:L:2003:124:FULL&from=EN [accessed: 17.07.2022].
- 14. Cordery C. J., Sinclair R. M. S., *Decision-Usefulness and Stewardship As Conceptual Framework Objectives: Continuing Challenges*, February 16, 2016, avaliable online: https://ssrn.com/abstract=2918784 [accessed: 17.07.2022].
- 15. Davulis G., *Mažos ir vidutinės verslo įmonės Lietuvoje bei jų makroekonominis efektyvumas, "*Studijos šiuolaikinėje visuomenėje" 2015, 6(1).
- 16. Directive 2013/34/EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC, available online: EUR-Lex 02013L0034-20141211 EN EUR-Lex (europa.eu) [accessed: 17.07.2022].
- 17. Dzikevičius A., Jonaitienė B., *Searching for the Best Financial Fatios Evaluating Companies Operating in Different Lithuanian Sectors*, "Business: Theory and Practice" 2015, 16(2), available online: https://doi.org/10. 3846/btp.2015.533 [accessed: 18.07.2022].
- 18. European Agency for Safety and Health at Work (EU-OSHA), Wadsworth E., Walters D., Darbuotojų saugos ir sveikatos užtikrinimo veiklos labai mažose ir mažosiose Europos Sąjungos įmonėse sąlygos ir priemonės: SESAME projektas: santrauka, Publications Office, 2016, available online: https://data.europa.eu/doi/10.2802/366689 [accessed: 19.06.2022].
- 19. European Commission, *Thinking Big for Small Businesses: What the EU does for SMEs,* Publications Office of the European Union, Luxembourg 2011, available online: https://data.europa.eu/doi/10.2769/10436 [accessed: 19.06.2022].
- 20. Faherty U., Stephens S., *Innovation in Micro Enterprises: Reality or Fiction?*, "Journal of Small Business and Enterprise Development" 2016, 23(2), available online: https://doi.org/10.1108/JSBED-11-2013-0176 [accessed: 19.06.2022].

- 21. Gandziuk O., *The Financial Statements of User Requirements*, "Baltic Journal of Economic Studies" 2016, 2(2), available online: DOI: 10.30525/2256-0742/2016-2-2-24-31 [accessed: 19.06.2022].
- 22. Grigoras-Ichim C. E., Morosan-Danila L., *Hierarchy of Accounting Information Qualitative Characteristics in Financial Reporting*, "The USV Annals of Economics and Public Administration" 2016, 16(1(23)).
- 23. Hasanaj P., Kuqi B., *Analysis of Financial Statements: the Importance of Financial Indicators in Enterprise*, "Humanities and Social Science Research" 2019, 2(2), available online: https://doi.org/10.30560/hssr.v2n2p17 [accessed: 19.06.2022].
- 24. Houston D., Reuschke D., *City Economies and Microbusiness Growth*, "Urban Studies" 2017, 54(14), available online: https://doi.org/10.1177/0042098 016680520 [accessed: 19.06.2022].
- 25. Ibrahim U. A., Isiaka A., Working Capital Management and Financial Performance of Non Financial Quoted Companies in Nigeria, "International Journal of Research In Business and Social Science" 2021, 10(3), available online: https://doi.org/10.20525/ijrbs.v10i3.1116 [accessed: 20.07.2022].
- 26. Ievins J., Malahova J., Ketners K., *Possibilities of Labour Protection Improvement in Micro- and Small Enterprises*, [In:] A. Auzina (Ed.), *Economic Science for Rural Development: Proceedings of the International Scientific Conference*, Lauksaimniecibas universitates, Jelgava 2016.
- 27. Ignasiak-Szulc A., Juščius V., Bogatova J., Economic Evaluation Model of Seaports' Performance Outlining Competitive Advantages and Disadvantages, "Inžinerinė Ekonomika" 2018, 29(5), available online: https://doi.org/10.5755/j01.ee.29.5.21363 [accessed: 20.07.2022].
- 28. International Accounting Standard (IAS) 1, 2010, available online: https://www.iasplus.com/en/standards/ias/ias1 [accessed: 20.07.2022].
- 29. Jianu I., Reliability of Financial Information from the Perspective of Benford's Law, "Entropy" 2021, 23(5), available online: https://doi.org/10.3390/e23050557 [accessed: 20.07.2022].
- 30. Kanapickienė R., Špicas R., *Credit Risk Assessment Model for Small and Micro-Enterprises: The Case of Lithuania*, "Risks" 2019, 7(2), available online: https://doi.org/10.3390/risks7020067 [accessed: 20.06.2022].
- 31. Kardelis K., *Mokslinių tyrimų metodologija ir metodai: edukologija ir kiti socialiniai mokslai: vadovėlis (5-asis patais. ir papild. leid.)*, Mokslo ir enciklopedijų leidybos centras, Vilnius 2016.
- 32. Kliestik T., Valaskova K., Lazaroiu G., Kovacova M., Vrbka J., *Remaining Financially Healthy and Competitive: the Role of Financial Predictors*, "Journal

- of Competitiveness" 2020, 12(1), available online: https://doi.org/10.7441/joc.2020.01.05 [accessed: 20.06.2022].
- 33. Lapitkaia L., Leahovcenco A., Requirements for The Disclosure of Financial Information for SMES in Accordance With European and National Legislation, "CSIE Working Papers Series", 2018, (8).
- 34. Lia D. A. Z., Natswa S. L., Assessment of Financial Ratio Analysis for Evaluation of Small Medium Enterprises (SME) Performance (Study on IRT Ramayana Agro Mandiri Batu City 2016-2019), "International Journal of Multicultural and Multireligious Understanding" 2021, 8(8), available online: https://doi.org/10.18415/ijmmu.v8i8.2889 [accessed: 20.06.2022].
- 35. Lietuvos Respublikos finansinės apskaitos įstatymas, 2001 m. lapkričio 6 d. Nr. IX-574. Valstybės žinios, 2001, Nr. 99-3515, available online: https://eseimas.lrs.lt/portal/legalActEditions/lt/TAD/TAIS.154657 [accessed: 20.06.2022].
- 36. Lithuanian Business Accounting standards (BAS), available online: Priimti standartai | Audito, apskaitos, turto vertinimo ir nemokumo valdymo tarnyba prie Lietuvos Respublikos finansų ministerijos (lrv.lt) [accessed: 10.06.2022].
- 37. Lopriore M., *Supporting Enterprise Development and SME in Europe,* "EIPAScope" 2009, (2), available online: http://aei.pitt.edu/id/eprint/12383 [accessed: 10.06.2022].
- 38. Lukason O., Laitinen E. K., Suvas A., *Failure Processes of Young Manufacturing Micro Firms in Europe*, "Management Decision" 2016, 54(8), available online: https://doi.org/10.1108/MD-07-2015-0294 [accessed: 10.06.2022].
- 39. Mackevičius J., Subačienė R., Labai mažų įmonių finansinės būklės analizės metodika, naudojant finansinių ataskaitų duomenis, [In:] V. Baltrūnienė (Ed.), Ekonomikos vystymasis: procesai ir tendencijos: IV-osios tarptautinės mokslinės- praktinės konferencijos, įvykusios Vilniaus kolegijos Ekonomikos fakultete 2017 m. balandžio 26 d., medžiaga, Vilniaus kolegija, Vilnius 2017.
- 40. Mackevičius J., Valkauskas R., *The Method for Setting the Reliability of Financial Analysis Information*, "Information & Media" 2016, 76, available online: https://doi.org/10.15388/Im.2016.76.10383 [accessed: 10.08.2022].
- 41. Marioara A., *The Role of the Annual Financial Statements in the Management of the Company,* "Analele Universitatii Constantin Brancusi Din Targu Jiu: Seria Economie" 2013, 1(1).
- 42. Mbona R. M., Yusheng K., Financial Statement Analysis: Principal Component Analysis (PCA) Approach Case Study on China Telecoms Industry,

- "Asian Journal of Accounting Research" 2019, 4(2), available online: https://doi.org/10.1108/AJAR-05-2019-0037 [accessed: 10.08.2022].
- 43. NASDAQ OMX, *Įmonių finansinė analizė: rodiklių skaičiavimo metodika*, Vilnus 2010, available online: https://www.nasdaqbaltic.com/files/vilnius/leidiniai/Rodikliu_skaiciavimo_metodika-final.pdf [accessed: 10.06.2022].
- 44. Obradovič A., Mizdrakovič V., Obradovič M., *Liquidity and Solvency of Healthy and Bankrupt Entities: Do Financial Statements Show Any Differences?*, "International Review" 2020 (3–4), available online: DOI: 10.5937/intrev20031230 [accessed: 10.06.2022].
- 45. Pavlovič M., Radoičič J., Milanovič M., *Profitability Analysis of Apple Production in the Republic of Serbia*, "Ekonomika Poljoprivrede" 2020, 67(3), available online: https://doi.org/10.5937/ekoPolj2003817P [accessed: 10.06.2022].
- 46. Pletnev D. A., Barkhatov V. I., Naumova K. A., *SME's Criteria in National Economies and Its Scale: A Comparative Study,* "Vestnik Cheliabinskogo Gosudarstvennogo Universiteta" 2021, 452(6), available online: DOI 10.47475/1994-2796-2021-10617 [accessed: 10.07.2022].
- 47. Ptak-Chmielewska A., Predicting Micro-Enterprise Failures Using Data Mining Techniques, "Journal of Risk and Financial Management" 2019, 12(1), available online: https://doi.org/10.3390/jrfm12010030 [accessed: 10.07.2022].
- 48. Quintao C., Andrade P., Almeida F., *How to Improve the Validity and Reliability of a Case Study Approach*, "Journal of Interdisciplinary Studies in Education" 2020, 9(2), available online: https://ojed.org/jise [accessed: 10.07.2022].
- 49. Versli Lietuva, *Labai mažos įmonės Lietuvoje: ekonominė reikšmė ir augimas*, 2018, available online: https://www.verslilietuva.lt/wp-content/uploads/2020/01/2018.12.31-LM%C4%AE-Lietuvoje-reik%C5%A1m%C4%97-ir-augimas.pdf [accessed: 10.09.2022].
- 50. Widarti W., Desfitrina D., Zulfadhli Z., Business Process Life Cycle Affects Company Financial Performance: Micro, Small, and Medium Business Enterprises during the Covid-19 Period, "International Journal of Economics and Financial Issues" 2020, 10(5), available online: https://doi.org/10.32479/ijefi.10516 [accessed: 10.09.2022].
- 51. Zelgalve E., Zaharčenko A., *Transformation of the Role of Financial Analysis in Enterprise Management*, "Management of Organizations: Systematic Research" 2012, (64), available online: https://doi.org/10.7220/MOSR.1392.1142.2012.64.10 [accessed: 10.09.2022].

52. Zimon G., Nakonieczny J., Chudy-Laskowska K., Wojcik-Jurkiewicz M., Kochanski K., *An Analysis of the Financial Liquidity Management Strategy in Construction Companies Operating in the Podkarpackie Province*, "Risks" 2022, 10(5), available online: https://doi.org/10.3390/risks10010005 [accessed: 10.09.2022].

Information about the author:

Kristina Rudžionienė, PhD, professor, Institute of Social Sciences and Applied Informatics Kaunas Faculty, Vilnius University, Kaunas, Lithuania e-mail: Kristina.Rudzioniene@knf.vu.lt

Aušra Molotkevičiūtė, Vilnius University, Lithuania

Rūta Klimaitienė, PhD, associate professor, Kaunas Faculty, Vilnius University, Lithuania