Milena Otavová, PhD

Associate Professor
Mendel University in Brno, Czech Republic
Faculty Business and Economics
E-mail: milena.otavova@mendelu.cz
Orcid: https://orcid.org/0000-0003-2481-479X

Jana Gláserová, PhD

Associate Professor
Mendel University in Brno, Czech Republic
Faculty Business and Economics
E-mail: jana.glaserova@gmail.com
Orcid: https://orcid.org/0000-0001-5038-8347

ESG REPORTING IN SELECTED SECTORS: EMPIRICAL EVIDENCE FROM THE CZECH REPUBLIC

UDC / UDK: 502.131.1:005.35]:658.14](437.3)
JEL classification / JEL klasifikacija: M48, M14, Q01, G20, G30
https://doi.org/10.17818/EMIP/2026/41
Preliminary communication / Prethodno priopćenje
Received / Primljeno: May 6, 2026 / 6. svibnja 2026.
Accepted / Prihvaćeno: September 8, 2026 / 8. rujna 2026.

Abstract

This paper examines the quality and quantity of sustainability reporting by selected companies in the Czech Republic across four sectors: chemical, energy, automotive, and agro-industry. It analyses the development of sustainability reporting from 2017 to 2024 in relation to the NFRD and CSRD, and identifies differences across sectors and companies. The research combines content analysis of annual reports with a qualitative assessment based on a points scale reflecting the level of detail in individual areas of ESG reporting. The results show an overall increase in both the quantity and quality of reporting across the sectors examined, with the strongest growth observed in the energy and automotive industries. The study also explores the relationship between financial indicators and the extent of sustainability reporting using Pearson's correlation coefficient, showing positive associations, particularly with assets and equity.

Keywords: ESG, NFRD, CSRD, sector, sustainability, report, Czech Republic

This work is licensed under a Creative Commons Attribution 4.0 International License.

1. INTRODUCTION

The concept of Environmental, Social, and Governance (hereinafter ESG) represents a key topic in the current economic discourse, primarily due to its impacts on the strategic management of companies and wider society. Although the public debate is often dominated by the environmental pillar, complex aspects such as transparency, data credibility, risk management and compliance with regulatory requirements are crucial for effective sustainability reporting. These factors fundamentally influence investment decisions and shape the future competitive advantage of companies in the market.

The European framework for ESG reporting has been essentially changing in recent years. The EU Corporate Sustainability Reporting Directive (hereinafter CSRD) together with the Sustainability Reporting Standards (hereinafter ESRS) have become a reality, but they are still being updated. The result is an environment where what matters is not only who has to report but primarily how companies work with ESG information and what value it brings them.

Companies that monitor and possibly also report their sustainability data see the significant value of the data for formulating their business strategy and corporate governance. This is also confirmed by the results of the current global survey conducted by PwC (2025). Furthermore, the survey shows that companies can make better decisions based on honest data collection. Most of them use ESG data for strategic planning, risk management, supply chain, corporate finance and investment transformation or workforce transformation. Companies that have most benefited from ESG reporting have stronger involvement of top management, which enables sustainability data to play a positive role in corporate governance. This has been significantly facilitated by a shift in technology, specifically the use of artificial intelligence, which is most often used to summarize reports, identify risks and integrate data from different sources, allowing more effective data management for reporting.This article provides a longitudinal overview of sustainability reporting, with a focus on differences across key sectors within the Czech Republic.

2. LITERATURE REVIEW

2.1. Research background

The research problem is primarily connected with corporate social responsibility, i.e. Corporate Social Responsibility (CSR). This is an internationally used term for the principles of corporate behaviour in three areas: economic, social and environmental (Tetřevová, 2017). However, it only represents a conceptual framework which is built on a voluntary basis and provides moral and ethical foundations for business activities. The individual areas of CSR are interconnected and influence each other, which is key for their

effective implementation (Chenavaz, Couston, Heichelbech, Pignatel & Dimitrov 2023). Companies that follow the principles of CSR are perceived better from the investors' perspective and there is lower investment risk, says Ors (2024). The advantage of CSR for companies is a positive impact on the environment, which strengthens their credibility. Companies should therefore try to reduce the impacts of their activities on the environment, especially by reducing their carbon footprint and making their production more environmentally friendly. For these reasons, they should just focus more on environmental aspects.

Due to an increasing interest in corporate social responsibility, the ESG initiative was established. ESG provides a general framework that companies use and that can be quantified (O'Neill, 2023). Currently, ESG is also used in financing companies where the environmental nature of the financed project is taken into account and more advantageous loans are then provided. At the same time, reporting ESG factors is also motivated by the growing interest of investors (Tuškan Sjauš, Zlovolić & Krišto, 2024). According to Březinová (2023), when reporting, companies should aim at identifying risks and opportunities related to the environment. The social aspect of ESG concerns the company's relationship with the people and the communities with whom it cooperates. Governance or corporate management includes transparency in how companies are run, their ethical practices, the method of selecting and composing the board of directors, compliance with laws and regulations and an anti-bribery policy.

The communication of a company's sustainability goals, more specifically its "environmental", "social" and "governance" objectives and its progress towards achieving them, is regarded as ESG disclosure (Khamisu, Paluri & Sonwaney, 2024). Using the disclosed information, stakeholders may subsequently evaluate the organization's commitment to sustainability, which in turn influences their decision on rewarding companies with higher ESG initiatives (Sarti, Darnall & Testa, 2018). It is the disclosure of information on environmental, social and governance issues and engagement in corporate social responsibility that play a key role in ensuring transparency, increasing financial performance and securing long-term competitive advantages (Ellili, 2022; Sánchez, 2018). While stakeholder theory emphasizes the importance of considering the interests of employees, customers and communities, it fails to fully explain how cultural, social and institutional factors moderate the relationship between ESG and financial performance (Laique, Abdullah, Rehman & Sergi 2023). ESG thus extends traditional financial analysis with environmental, social and governance aspects that can significantly impact a company's long-term value. As sustainability becomes part of core operations, improvements in operational efficiency, risk management and stakeholder relationships drive long-term profitability and growth (Coelho, Jayantilal & Ferreira, 2023).

However, companies that follow ESG principles or social commitments may be at a disadvantage compared to their competitors that do not engage in such practices and in industries with low public visibility, the financial benefits of

ESG are often minimal (Khan *et al*., 2024). At the same time, Saini and Kharb, (2026) argue that the impact of ESG on financial performance strongly depends on industry-specific dynamics.

2.2. Evolution of EU legislation relevant to the research topic

Already in 2014, the European Parliament and the Council adopted the Non-Financial Reporting Directive 2014/95/ EU, which covers the reporting of non-financial information by large enterprises (NFRD). EU Member States were obliged to transposed the NFRD Directive into their national regulations so that their non-financial information for 2017 was reported in accordance with it. The reporting obligation was imposed on large undertakings that were commercial companies as well as public interest entities if they exceeded the average number of 500 employees during the accounting period as of the balance sheet date. The European Commision issued guidelines to help companies produce non-financial reports that are in line with international standards. The guidelines are designed to ensure that concise, comparable and consistent non-financial information is provided, but they are not mandatory, they are voluntary (Korca & Costa, 2021). The NFRD requires reporting on ESG factors, which are used to assess a company's sustainability performance and ethical business practices, although many of these factors cannot be quantified or expressed in financial indicators. However, reporting non-financial information under the NFRD showed considerable fragmentation and lack of systematicity, which resulted from only general legal requirements for non-financial reporting and from the fact that external verification was only limited to the existence of the report and not to its relevant content, as also demonstrated by Kotsantonis and Serefeim (2019). To achieve comparability, emphasis is increasingly placed on the nature of this information, still understood in a double meaning. This shift reflects the growing importance of the double materiality principle, which requires companies to disclose both how sustainability matters affect the company and how the company's activities affect society and the environment. Therefore, there is a very strong interest among companies in introducing a uniform standard for reporting non-financial information (Monteiro, Vale, Leite, Lis & Kurowska-Pysz 2022). There is still a persistent view that it is necessary to increase the regulation of non-financial reports and strengthen the concept of dual materiality and ensure that relevant information on ESG factors and their significance is reported (Fiandrino, Gromis, Tonelli & Lucchese 2022).

Nevertheless, the implementation of the NFRD helped to increase stakeholder credibility by up to 19% (Ottenstein, Erben, Jost, Weuster, & Zülch 2022). A study by Breijer and Orij (2022) points out that there is an increase in information asymmetry in published non-financial reports. Although the Directive aims to increase the credibility of reports, it does not affect the comparability of sustainability reporting in the EU (Venturelli, Fasan & Pizzi, 2022). Therefore, in 2022, the EU adopted a new Directive (CSRD), which was

expected to introduce a uniform reporting methodology and determine individual evaluated factors. Its aim was to resolve shortcomings in the rules for non-financial reporting under the NFRD, and thereby achieve a higher level of transparency of social and environmental information provided by companies in all sectors. Thanks to the CSRD, investors and banks should have a better tool for investment risk management and a chance to target finances to green projects. The CSRD also introduces other new requirements for ESG reporting. The CSRD gradually makes other groups of companies obliged to report sustainability information. The number of companies obliged to disclose sustainability information thus increases approximately five times (Matzner, 2024).

The new rules were transposed into the legislation of the Member States and the CSRD came into effect in the Czech Republic in 2024. The requirements of the Directive are key for companies' access to sustainable financing. A study by Fiechter, Hitz and Lehmann (2022) shows that the introduction of EU directives in relation to sustainability reporting has increased the activity of companies in this area. At the same time, Tsang, Frost and Cao, (2023) state that it has not been proved that companies respond to the directives with greenwashing. Focusing on sustainable development and environmental responsibility can also bring economic benefits if companies concentrate on innovative and efficient ways of production and consumption. Ors (2024) says that companies that follow the principles of sustainability are perceived better from the investor perspective and there is a lower investment risk.

The CSRD was directly followed by the EU proposal for ESRS standards. In 2023, a total of 12 standards were proposed. These standards were developed within the framework of the CSRD and aim to harmonize and improve the transparency of sustainability reporting in Europe. One of the key principles of the ESRS is dual materiality, which means that companies must evaluate not only the environmental and social impacts of their business, but also how sustainability factors affect their own financial risks and opportunities. This perspective helps organizations integrate sustainability into their strategies and decision-making processes (PlanA, 2024). All companies subject to the CSRD are required to have their non-financial information verified by an external auditor, which will enhance the credibility of the reported. The implementation of the ESRS brings companies not only new obligations, but also opportunities to improve their sustainability and transparency.

Another European directive under review is the Corporate Sustainability Due Diligence Directive (CSDDD), which focuses on corporate responsibility in the supply chain and the protection of human rights and the environment. Companies are required to invest in systems for monitoring and assessing risks in the supply chain, which leads to companies' greater accountability for their impact on society and the environment, which reflects growing expectations from investors, consumers and regulators (Peyton Legal, 2023). However, it contains loopholes in civil liability that companies can exploit to their advantage, such as the creation of a complex supply chain (Pacces, 2023). Continuous cooperation

between stakeholders is also essential to improving the directive and addressing new issues (Dempere, Udjo & Mattos, 2024).

2.3. Current state of legislation within the European Union

In November 2024, EU leaders adopted the Budapest Declaration, where concerns were expressed about the regulatory burden of the Green Deal and the threat to the EU's competitiveness. Therefore, in February 2025, the European Commission came up with a package of amendments called Omnibus I. The package represents the European Commission's intention to simplify and reduce the regulatory burden for the private sector.

Specifically, it is a set of amendments to regulations in the field of ESG reporting, where directives and regulations were modified, in particular the CSRD, CSDDD and ESRS and other related regulations (Voráček, 2025). The main goal is to reduce regulatory overload and administrative burden, for that reason, the European Union is trying to find a compromise between ESG objectives and the competitiveness of companies.

CSRD reporting obligation should now only apply to large companies with more than 1,000 employees. The number of companies required to report sustainability elements would decrease by approximately 80% in the EU (Nicolo, Zampone, Sannino & Polcini, 2025).

The final draft of the Omnibus I package was approved in December 2025. The Omnibus I Directive was formally adopted on 24 February 2026, which marks the legislative end of the changes. This will significantly reduce the number of companies under direct regulation and reduce the administrative burden, especially for small and medium-sized enterprises. It is clear that increasing the limits and narrowing the obligations will affect a smaller number of companies.

However, this does not mean that ESG has lost its importance. The role of ESG is thus shifting from direct regulation to market expectations and strategic necessity, with a view to maintaining and increasing competitiveness. The ESRS will operate in a supporting manner, maintaining basic principles. The change in the rules for ESG reporting has undoubtedly slowed down the original positive trend in preparations for ESG reporting. On the other hand, in addition to pressure from other stakeholders such as banks, investors, etc., a large number of companies are also driven by the belief that data and knowledge about sustainability are a competitive advantage not only due to better preparation for regulations, but also due to better quality decision-making throughout the whole company.

3. METHODOLOGY

The aim of the paper is to assess the level of sustainability reporting (ESG) by Czech companies. Sustainability reporting is analyzed from a

quantitative and qualitative perspective. Three key ESG dimensions – environmental, social, and governance – were examined based on predefined criteria. The evaluation of reported sustainability information focuses on important sectors of economy (chemical industry, energy industry, automotive, agro-industry sector), i.e. sectors that have a significant negative impact on the environment. Subsequently, accounting entities were selected from the "COFACE CEE TOP 500" ranking, i.e. the 500 largest companies in Central and Eastern Europe, published by the international company COFACE (Coface, 2024). The subsequent selection always included the three highest ranked Czech companies in the sector under study. The companies were then evaluated with regard to the level of sustainability reporting based on data reported in 2017, 2021, 2022 and 2024. The choice of years was based on the following considerations: in 2017, the obligation to report non-financial information for selected entities under the NFRD began, in 2021 and 2022, it can be assumed that businesses already have significant awareness of reporting non-financial information and 2024 is the first reporting period under the CSRD. The selected periods also reflect key stages of the implementation of European regulatory changes based on the effectiveness of the NFRD, CSRD and also the implementation of ESRS. This allows examining not only inter-company and inter-sectoral differences, but also the development of companies' information obligations over time.

The following research questions were set as part of the research:

RQ1: To what extent does regulatory pressure (CSRD) influence the scope and quality of ESG reporting?

RQ2: Are there significant differences in the scope and structure of ESG reporting across different industries?

RQ3: What relationships influence the level of ESG reporting among Czech companies?

The analysis was conducted using annual reports or separate sustainability reports, depending on the type of documents that individual companies published in a given period. The quantity of reported sustainability information is examined using content analysis. Selected text passages were processed using the IRAMUTEQ software, which helps systematically analyse text documents and identify the frequency of occurrence of selected key terms. On the basis of the frequencies of terms, an interpretation of the development of ESG reporting of the companies under observation was made in relation to the tightening of regulatory requirements for non-financial reporting. Using this method, keywords were analyzed (see Table 1), including their equivalents, taking into account the topics under research. The set of keywords is derived from an empirical screening process and includes a selected subset of ESG concepts. At the same time, data was added for each company surveyed, namely the normalized number of words, i.e. the number of keywords per page of the KPP document (Keywords per Page).

Subsequently, on the basis of a comparison during the years under examination, changes were presented, in absolute terms, when the years 2024 and 2017 were assessed, i.e. the years from the introduction of the NFRD, to the latest available data, when the CSRD was already in effect.

Table 1 Keywords and Corresponding Search Terms

Keyword	**Abreviation**	**Targeted keywords**
environment	**ENV**	Environmental, environmental protection, minimizing negative impacts
governance	**GOV**	Whistleblowing, compliance, transparency, internal controls, risk management
social	**SOC**	Social inclusion, social disadvantage, social benefits, social infrastructure, social background, social conditions, social fund, social projects
emissions	**EMI**	Greenhouse gas emissions, emission risk, emission limits, low-emission, zero-emission
climate change	**KLIM**	Climate, Paris Agreement, 2030 Agenda, climate agreement
ethics	**ETI**	Code of ethics, ethical conduct
carbon footprint	**CO2**	CO2, carbon dioxide, carbon neutrality
education	**EDU**	Education, educational campaign
alternative fuel	**ALTER**	Biofuel, natural gas, electricity, hydrogen, alternative energy
local conditions	**LOK**	Local resources, local producers, local residents, local suppliers, local residents
working conditions	**PRAC**	Working hours, occupational safety, labor relations, employment contract, workplace
recycling	**REC**	Waste recycling, metal recycling, plastic recycling

Source: own compilation

The quality of the reported sustainability information is then examined by quantifying the level of information disclosed, using a point scale (0-2) reflecting the degree of specificity, content quality and information value of the disclosed data. The zero value of the scale represents a situation where the given topic is not mentioned at all or is presented by statements without specific content. The middle level of the scale captures the disclosure of measurable data. The highest value of the scale reflects the highest level of transparency, where quantitative data is provided with the addition of explicitly formulated company objectives, or with the provision of a year-on-year comparison. The areas for qualitative analysis are based on the empirical screening process and are listed in Table 2 below. The sustainability reports were coded in a standardized manner, with the coding being carried out independently, and consistency was verified. For the primary assessment of the chemical and energy industries, evaluator No. 1 was determined as the main coder, for the automotive and agro-industry sectors, evaluator No. 2 was determined as the main coder. Subsequently, the evaluators independently assessed all items in order to verify reliability. The degree of agreement was verified using Cohen's κ coefficient. Cases of disagreement were

subsequently resolved through discussion and a consensus assessment was used in subsequent analyses.

Table 2 Selected areas for qualitative analysis

Areas of qualitative analysis	
Environment	Minimizing the negative impact on the environment, Limiting investment in the coal industry, Adopting commitments under the Paris Climate Agreement, Encouraging employees to protect nature
Social issues	Supporting research, development, and innovation, Charitable activities, Encouraging employees to engage in charitable activities
Employee Issues	Employee training, Employee benefits, Employee discounts on products, Health and Safety
Respect for Human Rights	Zero Tolerance for Discrimination, Support for Programs Aimed at the Inclusion of Disadvantaged Individuals
Combating Corruption and Bribery	Code of Ethics, Employee Training

Source: own compilation

Based on quantitative analysis of 2024 data, correlations the level of sustainability reporting by companies in the Czech Republic were identified. The following indicators are taken into account: net turnover, converted number of employees, assets, equity and Earnings Before Interest and Taxes (EBIT) also profitability indicators, namely return on assets (ROA) and return on equity (ROE). To determine the potential relationship between the above-mentioned variables, the Pearson correlation coefficient is applied. To assess the relationship between the number of keywords and the economic characteristics of the analyzed companies, a Spearman correlation analysis was also conducted. The purpose of this analysis was not to demonstrate a causal relationship, but rather to provide additional verification of whether company size might be related to the scope of the environmental information disclosed. The number of employees and revenue were selected as indicators of firm size.

Based on a synthesis of the findings, final conclusions and recommendations are drawn for the potential development of non-financial reporting in the Czech Republic across to the main business sectors.

4. RESULTS

The results are processed for the individual sectors studied, namely chemical, energy, automotive and agro-industry. On the basis of the selection of companies according to COFACE, i.e., the three largest companies for each sector, a quantitative analysis was performed using content analysis of annual reports or reports on sustainable development for the years 2017, 2021, 2022 and 2024. A qualitative analysis was also conducted, using a point scale (see Methodology), on the basis of which the quality of the sustainability information reported by the monitored companies could be assessed. At the same time, tables

No. 3, 4, 5 and 6 in the last row show the number of keywords per page of the KPP document (Keywords per Page). Thanks to KPP, it is then possible to eliminate the influence of different numbers of document pages and to make better comparisons between companies and individual years.

4.1. Quantitative analysis

According to the above methodology, keywords were searched in companies' annual reports and sustainability reports for the years under review for selected companies within the sectors studied, which were the chemical industry, energy industry, automotive industry and agro-industry.

Table 3 Quantitative analysis of the chemical industry

Keyword	MOL ČR				Čepro				Orlen Unipetrol RPA			
	2017	2021	2022	2024	2017	2021	2022	2024	2017	2021	2022	2024
ENV	3	3	5	8	3	6	4	11	17	17	16	19
GOV	0	0	0	0	0	2	1	3	0	1	0	0
SOC	6	7	8	7	11	6	14	24	16	11	12	14
EMI	0	0	1	3	1	1	1	4	5	15	9	13
KLIM	1	1	1	1	0	0	0	0	0	0	1	0
ETI	11	11	11	11	0	0	0	0	0	0	0	0
CO2	0	0	0	1	2	0	4	5	24	29	29	32
EDU	0	1	1	1	6	12	18	11	5	9	8	8
ALTER	2	7	8	5	8	27	29	32	5	14	16	21
LOK	0	0	0	1	1	1	2	2	1	1	1	1
PRAC	5	6	7	1	5	14	8	14	12	15	14	15
REC	0	0	2	3	2	4	8	1	2	7	9	10
Total	28	36	44	42	39	73	89	107	87	118	116	133
KPP	0.74	0.82	1.00	1.11	0.34	0.45	0.74	0.78	1.04	1.23	1.16	1.30

Source: own compilation

Analysis of MOL Česká republika revealed that the highest frequency of keywords was identified in the category of ethics (ETI), which shows stable values throughout the entire period under review. In the case of ČEPRO a.s., the most significant growth dynamics are evident in the area of alternative fuels (ALTER). This category also represents the most frequent topic in the company's reporting. ORLEN Unipetrol RPA shows the highest absolute frequency of keywords in the area of carbon footprint (CO2). In terms of minimum representation, in all companies analysed, the lowest frequency was recorded in the areas of governance (GOV) and climate change (KLIM), where the values are close to zero.

Table 4 Quantitative analysis of the energy industry

Keyword	ČEZ				ALPIQ ENERGY SE				MND			
	2017	2021	2022	2024	2017	2021	2022	2024	2017	2021	2022	2024
ENV	36	38	44	62	1	1	1	1	21	21	24	36
GOV	0	0	8	17	0	0	0	0	0	0	0	1
SOC	31	25	52	90	2	2	2	1	16	16	17	45
EMI	177	245	316	352	6	5	0	2	7	7	7	148
KLIM	7	43	55	196	0	0	0	0	0	0	3	83
ETI	10	11	28	45	0	0	0	1	5	5	5	23
CO2	4	8	34	81	0	0	0	0	0	0	5	59
EDU	10	9	7	55	0	0	0	1	3	3	3	16
ALTER	12	25	50	71	0	0	0	0	0	0	0	118
LOK	46	41	40	36	2	0	0	1	0	0	2	19
PRAC	23	30	42	120	1	1	1	8	9	9	17	68
REC	14	21	23	19	0	0	0	0	0	0	0	11
Total	370	496	699	1144	12	9	4	15	61	60	83	627
KPP	1.04	1.08	1.47	1.56	0.27	0.21	0.08	0.29	0.79	1.50	1.66	2.71

Source: own compilation

The quantitative analysis of the energy industry (see Table 4) reveals a significant asymmetry in the volume of reported data between the surveyed entities.

Table 5 Quantitative analysis of the automotive industry

Keyword	ŠKODA AUTO				HYUNDAI CZ				CONTINENTAL BARUM			
	2017	2021	2022	2024	2017	2021	2022	2024	2017	2021	2022	2024
ENV	19	15	23	68	1	19	19	15	8	40	39	40
GOV	10	11	10	14	0	0	0	0	0	0	0	0
SOC	8	12	29	54	0	1	1	8	3	1	0	10
EMI	18	23	66	74	0	7	7	11	2	16	38	31
KLIM	1	2	5	12	0	0	0	0	0	4	1	7
ETI	10	11	16	7	0	0	0	0	0	0	0	0
CO2	0	15	22	26	0	3	3	0	0	3	3	15
EDU	36	25	32	62	0	5	7	1	1	0	0	0
ALTER	48	71	88	95	0	20	30	10	0	0	0	0
LOK	6	7	12	20	0	0	1	0	0	0	1	0
PRAC	13	28	37	40	4	32	39	36	27	14	18	30
REC	57	37	69	25	1	3	3	1	0	1	2	4
Total	226	257	409	497	6	90	110	82	41	79	102	137
KPP	1.53	2.23	2.76	2.56	0.19	0.60	1.62	2.28	0.54	1.65	2.08	2.74

Source: own compilation

A quantitative analysis of the automotive industry (see Table 5) shows an increasing trend in the frequency of reported keywords in all monitored companies, although the absolute numbers differ significantly between entities. The dominant position in the volume of reported data is held by Škoda Auto.

Table 6 Quantitative analysis of the agro-industry

Keyword	Plzeňský Prazdroj				GGT CZ				JIP VÝCHODOČESKÁ			
	2017	2021	2022	2024	2017	2021	2022	2024	2017	2021	2022	2024
ENV	1	1	18	17	2	2	0	1	1	1	1	1
GOV	0	0	1	4	0	0	1	1	0	0	0	0
SOC	1	1	7	15	5	4	2	6	10	9	8	8
EMI	0	5	108	138	0	0	0	0	0	0	0	0
KLIM	0	4	15	21	0	0	0	0	0	0	0	0
ETI	0	18	24	61	2	2	0	3	2	2	2	2
CO2	12	5	42	121	0	0	0	0	0	0	0	0
EDU	0	1	29	35	0	0	0	3	1	1	1	1
ALTER	0	0	0	0	0	0	0	0	0	0	0	0
LOK	0	4	22	27	0	0	0	0	0	0	0	0
PRAC	9	9	55	66	2	2	0	4	4	4	4	4
REC	4	6	55	49	1	0	1	1	0	0	0	0
Total	27	54	376	554	12	10	4	19	18	17	16	16
KPP	0.59	0.72	2.16	6.22	0.30	0.38	0.40	0.39	0.46	0.49	0.42	0.46

Source: own compilation

Quantitative analysis in the agro-industry (see Table 6) reveals a fundamental asymmetry in the frequency of reported non-financial information between the entities under study. While one entity shows a steep increase in reported keywords, the other two entities show values approaching zero.

4.2. Qualitative analysis

Qualitative analysis evaluates the quality of processing of non-financial information by the companies surveyed within the monitored sectors, for the years 2017 and 2024. Quality is assessed on a scale from 0 to 2 where the value 2 means that the company reports information on a given topic in an expanded form and deals with it in more detail. The analysis follows on from the quantitative analysis, mainly because although there is a visible trend, it gives no evidence about the development in the quality of the reported information. The original assessment was subsequently independently assessed in order to verify reliability. The degree of agreement was determined based on Cohen's coefficient κ. For the chemical industry, the resulting value was 0.933, for the energy industry 0.950, for the automotive industry 0.911 and for the agro industry 0.955. All these values represent almost perfect agreement between the assessors according to the classification of Landis and Koch (1977). "Almost perfect" applies to the interval 0.81–1.00.

Table 7 Qualitative analysis of the chemical industry

Areas of qualitative analysis		MOL Česká republika		ČEPRO		ORLEN Unipetrol RPA	
		2017	2024	2017	2024	2017	2024
Environment	Minimizing the negative impact on the environment	1	1	2	2	2	2
	Limiting investment in the coal industry	1	1	1	1	2	2
	Adopting commitments under the Paris Climate Agreement	0	0	0	0	0	1
	Encouraging employees to protect nature	0	1	0	1	0	1
Social issues	Supporting research, development, and innovation	1	1	1	2	2	2
	Charitable activities	2	2	2	2	1	1
	Encouraging employees to engage in charitable activities	0	0	1	1	0	0
Employee Issues	Employee training	1	0	1	2	1	1
	Employee benefits	0	0	2	2	2	2
	Employee discounts on products	0	1	2	1	1	1
	Health and Safety	1	1	2	2	1	0
Respect for Human Rights	Zero Tolerance for Discrimination	0	0	1	2	0	0
	Support for Programs Aimed at the Inclusion of Disadvantaged Individuals	0	0	0	0	0	0
Combating Corruption and Bribery	Employee Training	0	0	1	2	0	0
	Code of Ethics	2	2	0	0	0	0
Company Total		**9**	**10**	**16**	**20**	**12**	**13**

Source: own compilation

The results of the qualitative analysis of chemical industry (see Table 7) show a positive shift in the quality of reported information between 2017 and 2024 for all monitored entities. The overall level of reporting measured by the point scale shows an increasing trend. The most significant progress was reported for ČEPRO.

Table 8 Qualitative analysis of the energy industry

Areas of qualitative analysis		ČEZ		ALPIQ ENERGY SE		MND	
		2017	2024	2017	2024	2017	2024
Environment	Minimizing the negative impact on the environment	2	2	1	1	2	2
	Limiting investment in the coal industry	2	2	0	0	0	0
	Adopting commitments under the Paris Climate Agreement	0	2	0	0	0	1
	Encouraging employees to protect nature	2	2	0	0	2	2
Social issues	Supporting research, development, and innovation	2	2	0	1	1	1
	Charitable activities	2	2	0	0	1	1
	Encouraging employees to engage in charitable activities	2	2	0	0	1	1
Employee Issues	Employee training	2	2	0	0	1	1
	Employee benefits	1	2	1	1	2	2
	Employee discounts on products	0	0	0	0	0	0
	Health and Safety	1	2	0	1	0	1
Respect for Human Rights	Zero Tolerance for Discrimination	1	2	0	0	1	1
	Support for Programs Aimed at the Inclusion of Disadvantaged Individuals	1	2	0	0	0	0
Combating Corruption and Bribery	Employee Training	1	2	0	1	1	1
	Code of Ethics	1	2	1	1	1	1
Company Total		**20**	**28**	**3**	**5**	**13**	**15**

Source: own compilation

The qualitative analysis of the energy industry (see Table 8) points to significant differences in the quality of reporting between ČEZ, a.s., the dominant player in the market, and other entities.

Table 9 Qualitative analysis of the automotive industry

Areas of qualitative analysis		ŠKODA AUTO		HYUNDAI MOTOR CZ		CONTINENTAL BARUM	
		2017	2024	2017	2024	2017	2024
Environment	Minimizing the negative impact on the environment	2	2	2	2	1	2
	Limiting investment in the coal industry	1	2	0	2	0	2
	Adopting commitments under the Paris Climate Agreement	0	2	0	2	0	0
	Encouraging employees to protect nature	2	2	2	2	0	2
Social issues	Supporting research, development, and innovation	2	2	1	2	1	1
	Charitable activities	2	2	2	2	0	1
	Encouraging employees to engage in charitable activities	2	2	0	2	0	0
Employee Issues	Employee training	2	2	2	2	1	1
	Employee benefits	1	2	1	2	0	1
	Employee discounts on products	0	0	0	0	0	0
	Health and Safety	2	2	0	1	0	1
Respect for Human Rights	Zero Tolerance for Discrimination	0	2	0	1	0	1
	Support for Programs Aimed at the Inclusion of Disadvantaged Individuals	1	2	2	2	0	1
Combating Corruption and Bribery	Employee Training	2	2	0	0	0	0
	Code of Ethics	2	2	0	0	0	0
Company Total		**21**	**28**	**12**	**22**	**3**	**13**

Source: own compilation

The results of the qualitative analysis in the automotive industry (see Table 9) confirm the growing trend in the quality of non-financial reporting in all surveyed entities. Škoda Auto a.s. has a leading position in the quality of reporting.

Table 10 Qualitative analysis of the agro-industry

Areas of qualitative analysis		Plzeňský Prazdroj		GGT CZ		JIP	
		2017	2024	2017	2024	2017	2024
Environment	Minimizing the negative impact on the environment	2	2	1	1	0	1
	Limiting investment in the coal industry	0	2	1	1	0	1
	Adopting commitments under the Paris Climate Agreement	1	2	1	1	0	1
	Encouraging employees to protect nature	2	2	1	1	0	1
Social issues	Supporting research, development, and innovation	2	2	0	0	0	1
	Charitable activities	2	2	0	0	0	1
	Encouraging employees to engage in charitable activities	1	1	0	0	0	1
Employee Issues	Employee training	2	2	1	1	0	0
	Employee benefits	2	2	1	1	0	0
	Employee discounts on products	1	0	1	1	0	0
	Health and Safety	2	2	1	1	0	0
Respect for Human Rights	Zero Tolerance for Discrimination	1	1	0	0	0	0
	Support for Programs Aimed at the Inclusion of Disadvantaged Individuals	1	0	0	0	0	0
Combating Corruption and Bribery	Employee Training	2	2	0	0	0	0
	Code of Ethics	1	2	0	0	0	0
Company Total		**20**	**24**	**8**	**8**	**0**	**7**

Source: own compilation

The results of the qualitative analysis in the agro-industry (see Table 10) confirm the trend identified in the quantitative part, with a significant qualitative superiority of one entity over the others.

4.3. Summary of the research part

The following table expresses the absolute and relative change in the occurrence of keywords on the basis of the quantitative analysis of the companies under observation for the year 2024 compared to 2017.

Table 11 Keywords changes 2017/2024 for the sectors

Keywords (abbreviation)	Absolute change (Δ abs.) and relative change (Δ [%]) by sector							
	Chemical		Automotive		Energy		Agricultural	
	Δ abs	Δ [%]	Δ abs	Δ [%]	Δ abs	Δ [%]	Δ abs	Δ [%]
ENV	15	65	95	339	41	71	15	375
GOV	3	300	4	40	18	undefined	5	undefined
SOC	12	36	61	555	87	178	13	81
EMI	14	233	96	480	312	164	138	undefined
KLIM	0	0	18	1800	272	3886	21	undefined
ETI	0	0	-3	- 30	54	360	62	1550
CO2	12	46	41	undefined	136	3400	109	908
EDU	9	82	26	70	59	454	38	3800
ALTER	43	278	57	119	177	1475	0	undefined
LOK	2	100	14	233	8	17	27	undefined
PRAC	8	36	62	141	163	494	59	393
REC	10	250	-28	-48	16	114	45	900
Total	**128**	**83**	**443**	**281**	**1243**	**162**	**532**	**933**

Source: own compilation

It is clear that in all the sectors studied, changes can be observed between 2017 and 2024 with regard to the higher occurrence of the monitored words. The largest increase is evident in the energy industry, followed by the automotive industry and the chemical industry, the smallest in the agro-indrustry. At the same time, agriculture has a greater increase in all dimensions (except ALTER and ENV) than the chemical industry (see Table 11). It can be stated that companies have been gradually reporting in larger volumes over the years under review, which is a positive trend. These results are very favourable with regard to the obligation to report sustainability information. The largest increase is evident in reporting information from the environmental sector, namely climate change and emissions. This upward trend is also reflected in relative changes, with some indicators increasing by several hundred percent. In determining relative changes, undefined was reported where the original value from 2017 was zero.

Table 12 below is based on the values of the qualitative analysis. Information is examined in the given areas using the selected point scale (0–2). This is the average value of all companies under observation in the monitored years.

Table 12 Average quality values of reported information

Areas of qualitative analysis		2017	2024
Environment	Minimizing negative environmental impact	1,50	1,67
	Limiting investments in the coal industry	0,67	1,34
	Adhering to commitments under the Paris Climate Agreement	0,17	1,00
	Motivating employees to protect the environment	0,92	1,42
Social issues	Supporting research, development, and innovation	1,08	1,42
	Charitable activities	1,17	1,33
	Motivating employees to engage in charitable activities	0,58	0,83
Labor issues	Employee training	1,17	1,17
	Employee benefits	1,08	1,42
	Employee discounts on products	0,42	0,33
	Health and Safety	0,83	1,17
Respect for human rights	Zero tolerance for discrimination	0,42	0,83
	Support for programs to integrate disadvantaged individuals	0,42	0,58
Fight against corruption and bribery	Employee training	0,58	0,83
	Code of Ethics	0,67	0,83

Source: own compilation

The table shows that the quality of reported information increased in all monitored areas, which confirms the positive trend of reported information with regard to its quality between 2017 and 2024. It can be concluded that the results of the qualitative analysis correlate with the results of the quantitative analysis.

4.4. Non-financial reporting context

To identify relationships the level of reporting sustainability information by Czech companies, the following criteria were evaluated: net turnover, value of assets, number of employees, Earnings Before Interest and Taxes. (EBIT), equity, return on assets (ROA) and return on equity (ROE). The total number of keywords, which was determined on the basis of a quantitative analysis of the annual reports of Czech companies for the year 2024, is also recorded. Table 13 below shows the financial data and indicators of the companies surveyed and also the correlation coefficients that measure the relationship between the individual values and the number of keywords reported. Assets, net revenue, profit/loss and equity are stated in millions of CZK.

Table 13 Correlation coefficients of monitored companies in 2024

C	Net revenue	Employees	Assets	Profit/Loss	Equity	ROA	ROE	Word count
1	47 062	189 000	10 593	842	2 111	0,08	0,40	42
2	76 966	899	22 147	1 779	12 520	0,08	0,14	107
3	154 439	33 617	106 655	-13 023	51 883	-0,12	-0,25	133
4	344 449	33 617	901 974	29 933	250 914	0,09	0,12	1144
5	38 985	50	15 275	1 214	5 393	0,08	0,23	15
6	24 959	331	14 589	220	8 324	0,02	0,03	627
7	650 420	682 724	286 294	41 673	116 985	0,15	0,36	497
8	203 535	3 061	73 856	10 744	57 427	0,15	0,19	82
9	78 581	190 159	42 012	4 178	30 314	0,10	0,14	137
10	33 796	2 224	30 643	5 896	23 050	0,19	0,26	554
11	24 868	323	1 764	83	254	0,05	0,33	19
12	21 526	2 162	5 341	353	2 454	0,07	0,14	16
r	**0,46**	**0,13**	**0,81**	**0,61**	**0,79**	**0,19**	**-0,10**	**1**

Notes: C Company, 1 MOL ČR, 2 Čepro JSC, 3 Orlen Uniipetrol RPA, 4 ČEZ JSC, 5 ALPIQ ENERGY SE, 6 MND JSC, 7 ŠKODA AUTO JSC, 8 HYUNDAI CZ, 9 CONTINENTAL BARUM, 10 Plzeňský prazdroj JSC, 11 GGT CZ JSC, 12 JIP VYCHODOČESKÁ, r Pearson's correlation coefficient

Source: own compilation

As the Pearson correlation coefficient suggests, in almost all cases there is a certain positive correlation between the financial indicator and the number of reported keywords. The strongest relationship is observed for total assets, followed by equity and operating profit. The linear correlation of the indicators of return on equity and assets is negligible. It can therefore be stated that the assets and equity correlates most with the value of reported keywords of monitored companies within the Czech Republic. At the same time, however, it is important to note the limitation associated with the relatively small sample size.

The table shows that companies with a higher number of employees and higher revenue generally report a higher number of keywords. A Spearman's correlation analysis was then conducted to quantify this relationship.

Table 14 Results of Spearman's correlation analysis

Association	Spearman's correlation coefficient (ρ)	p-value
Number of words × Number of employees	0,417	0,178
Number of words × Revenue	0,434	0,159

Source: own compilation

The results of Spearman's correlation analysis indicate a moderately strong positive relationship for both variables under study, suggesting a connection between company size and the number of reported ESG keywords. However, it should also be noted that this relationship is not statistically significant at the $\alpha = 0.05$ significance level. Therefore, the existence of a

statistically significant monotonic relationship between the variables under study cannot be confirmed. This result may be influenced in particular by the small number of companies analyzed (n = 12).

5. DISCUSSION

Quantitative analysis shows a general increasing trend in the number of reported keywords over the period under review across all industries examined. However, there are significant differences in the volume and structure of reported topics between sectors and among the surveyed entities within sectors. The increase could be observed in the results from both qualitative and quantitative analysis. The fundamental difference between sectors is the level of reporting in various areas, which is mainly due to the sectoral specificities of companies, ESG reporting is strongly dependent on industry affiliation (Babić & Kulaš 2026). The automotive industry shows increased interest in electromobility, which is related to emissions and environmental impact. Compared to other sectors, there is increased reporting of information on working conditions, which indicates interest in their employees and underlines the importance of the working environment for the proper functioning of the company. The energy industry reports information mainly on emissions, which are related to the effort to limit electricity production in coal-fired power plants and find a sustainable source of electricity. The chemical industry focuses mainly on the development of alternative fuels and their impact on the environment but does not neglect the social aspect of the impact of their business. The analysis confirmed that material topics (the principle of materiality) differ by sector. While the energy and automotive industries logically emphasize emissions and alternative fuels (electromobility), the agro-industry and the chemical industry place a strong emphasis on social aspects and occupational safety. However, it is necessary to state that Plzeňský Prazdroj with its emphasis on environmental issues (water, carbon footprint) exceeds the standard of the agro-industry, which is due to its manufacturing nature compared to the purely commercial activities of other researched entities.

All companies within the sectors under study show interest in the current issue of non-financial reporting. In the future, it can be assumed that this trend will strengthen and that the quality of reported information will increase, especially in connection with increased public trust in their business activities and improved market position. The results of the quantitative analysis confirm that the upcoming mandatory reporting of sustainability information under the implemented CSRD is a strong accelerator. Sudden increases in the frequency of keywords (e.g. for MND a.s. or ČEZ, a.s. in the year 2024) indicate that companies are beginning to perceive non-financial reporting not only as a necessary condition for maintaining competitiveness and fulfilling legal obligations. The dominance of environmental topics (emissions, climatic change, carbon footprint) across the energy and automotive industries correlates with the

pan-European pressure for decarbonization and the transition to a low-emission economy. In non-financial reporting, the agro-industry sector exhibits specific characteristics, which are influenced by both the production and business focus of individual entities. For example, Plzeňský Prazdroj places a strong emphasis on environmental topics, especially water management, carbon footprint reduction and the efficiency of production processes, which corresponds to its manufacturing nature and high dependence on natural resources. This approach differentiates it from other monitored entities within the agro-industry and moves it closer to the standards of energy-intensive and industrial sectors.

The results of this study are in line with the relevant literature on non-financial reporting and ESG issues. Previous studies pointed to the growing importance of linking financial and non-financial information and the gradual integration of ESG factors into corporate strategy (Eccles & Krzus, 2010; Serafeim, 2022). This trend was also confirmed in the analysis carried out in this paper, where an increase in the scope of reported information across the sectors under study was identified. At the same time, based on the intensity of occurrence of KPP keywords, an increasing KPP value was confirmed for all companies in the monitored years, which indicates a higher concentration of keywords per page of the examined document. The results obtained here are consistent with the latest research in this area. The implementation of the CSRD is a significant factor leading to an increase in the quality, scope and standardization of non-financial reporting (Seow, 2024). This conclusion corresponds with the observed increases in the reporting of ESG information by the analysed companies, especially in the last years of the period under study. Current research also confirms that transparent ESG reporting has a positive impact on investor trust, reducing capital costs and improving long-term corporate performance (Pratiwi & Edeh, 2024). This aspect can be indirectly observed in the analysed companies, which with the increasing pressure on sustainability, are expanding the scope of published information and devoting more attention to key environmental issues. The scope and structure of ESG reporting are strongly influenced by the industry, the size of the company and the regulatory environment (Seow, 2024). This fact was also confirmed in this study, where distinct differences between individual sectors were identified. The issue of differences in reporting between parent and subsidiary companies was also reflected by Boubaker, Cumming and Nguyen (2018), who states that the centralization of ESG policies at the level of multinational corporations can lead to a lower level of detail in local reports. On the other hand, it is also necessary to mention critical views that point out the risk of formal reporting. Baker, Boulton, Braga-Alves and Morey (2021) assert that companies may disclose ESG information just under regulatory pressure or due to reputational motives and the information does not fully reflect real changes in their activities.

6. CONCLUSION

Non-financial reporting is undergoing dynamic development, primarily shaped by frequent revisions of the EU legislative framework. The legislative anchor for non-financial reporting was defined with an emphasis on the evolution from the NFRD to the CSRD, which sets new standards for transparent reporting. It was confirmed that legislative pressure is the main driver of changes in corporate reporting processes.

The aim of the paper was to evaluate the quality and quantity of reporting information on sustainability in selected sectors of the Czech Republic. The comparative analysis shows that although there is a general growing trend in the volume and quality of reported data, there are fundamental differences between individual sectors and companies. These differences can be attributed largely to the different nature of business activity. The quality and quantity of reported data in selected sectors of the chemical, energy, automotive and agro-industries were evaluated. On the basis of the quantitative analysis (content analysis) it can be confirmed in all analyzed sectors with regard to the companies under discussion that there were year-on-year increases in reported non-financial information within the years under study, i.e. in the years 2017, 2021, 2022 and 2024. Also, the results of the qualitative analysis confirmed a growing trend in the quality of reported sustainability information, the quality increased in all monitored areas within the years 2017 and 2024. With regard to the identification of financial indicators that have a significant association with keywords reported by Czech companies, the assets and the equity were identified using the Pearson correlation coefficient. At the same time, the results indicate that the scope and quality of ESG reporting are not the result of a single determining factor, but rather a combination of several interrelated factors. To supplement the analysis, a Spearman correlation analysis was conducted, which revealed a moderately strong positive correlation between the number of reported keywords and company size, with revenue and, subsequently, the number of employees selected as indicators of company size. However, this correlation is not statistically significant; the result may be influenced by the small number of observations.

The regulatory framework plays a particularly significant role, and other factors such as company size, industry sector, ownership structure, and exposure to foreign markets also come into play. Based on the analyses conducted, it can be clearly stated that legislative pressure is a key determinant of the development of ESG reporting, which indicates the gradual integration of ESG principles into corporate governance.

A correlation was demonstrated between the approaching effectiveness of new regulations and the increase in the volume and quality of published information. The results suggest that companies started to adapt their reporting mechanisms even before legal enforcement, which indicates their effort to remain competitive and meet market demands. The gradual increase in reported information is a positive signal with regard to sustainable business across the

analyzed sectors, which are currently under increasing pressure in relation to sustainability and responsible behaviour. This high-quality reported information will promote public trust in corporate activities and contribute to gaining competitive advantage.

However, the research identified persistent differences in the quality of reporting between individual sectors which are determined by both sector specifics and the ownership structure of entities. These differences are substantively significant and represent a key feature of current trends in non-financial reporting. While the energy and automotive industries exhibit a high intensity of reporting, particularly in environmental areas (emissions, climate change, alternative fuels), the chemical and agricultural sectors show a lower scope and a different structure of reported topics.

In the future, it can be predicted that the introduction of mandatory external audit of non-financial reports (assurance) will further enhance the credibility and relevance of data for stakeholders, making non-financial reporting a fully-fledged tool for comprehensive assessment of corporate performance.

However, it can be stated that the current development of European regulation in connection with the adoption of the Omnibus I package, which significantly reduced the mandatory regulation of the area under study, is not a fundamental starting point for companies. Legal regulation represents a minimum standard, but the natural integration of ESG principles into business models and corporate governance methods is essential. Such companies gain a better overview of risks and opportunities, the management of which leads to long-term building of company value and also to building trust with key stakeholders.

It is necessary to mention methodological limitations of this paper. Quantitative analysis based on the frequency of keywords need not fully reflect the context in which the terms are used (e.g. whether it is a positive commitment or just a statement of a legislative obligation). Another limitation of this study is the size of the sample analyzed and the availability of data, which may affect the generalizability of the findings. The main limitation is the small number of entities analyzed, which does not allow for generalizing the conclusions, as well as the reliance on publicly available documents, which may vary in scope and level of detail. The results therefore cannot be interpreted as a measure of companies' actual environmental performance, but rather as an analysis of the level of information transparency within the selected regulatory context. Despite these limitations, the research provides relevant insights into current ESG reporting practices in selected sectors in the Czech Republic and can serve as a basis for follow-up empirical studies.

Further research could therefore focus on a longitudinal analysis of the evolution of ESG reporting following the full implementation of the CSRD, including the ESRS, or on a more in-depth sector-by-sector comparison with the participation of a larger number of surveyed companies.

Author Contributions: Conceptualization, M.O. and J.G.; Methodology, M.O. and J.G; Validation, M.O. and J.G; Formal Analysis, M.O. and J.G.; Investigation, M.O. and J.G.; Resources, M.O. and J.G.; Data Curation, M.O. and J.G.; Writing – Original Draft Preparation, M.O. and J.G.; Writing – Review & Editing, M.O. and J.G.; Visualization, M.O. and J.G.; Supervision, M.O. and J.G.; Project Administration, M.O. and J.G.; Funding Acquisition, M.O. and J.G.

Funding: The research presented in the manuscript did not receive any external funding.

Conflict of interest: None.

Acknowledgement of AI or AI-assisted tools use: During the preparation of this work, the authors used ChatGPT for orientation in sources. The authors reviewed and edited all content and take full responsibility for the published article.

REFERENCES

Babić, A., & Kulaš, A. (2026). Panel Regression Analysis Of Esg Performance Of European Companies Using Business Intelligence Tools. *Ekonomska misao i praksa*, 0-0. https://doi.org/10.17818/EMIP/2026/30

Baker, E. D., Boulton, T. J., Braga-Alves, M. V., & Morey, M. R. (2021). ESG government risk and international IPO underpricing. *Journal of Corporate Finance*, *67*, 101913. https://doi.org/10.1016/j.jcorpfin.2021.101913

Boubaker, S., Cumming, D., & Nguyen, D. K. (Eds.). (2018). *Research handbook of finance and sustainability*. Edward Elgar Publishing. https://doi.org/10.4337/9781786432636

Breijer, R., & Orij, R. P. (2022). The comparability of non-financial information: An exploration of the impact of the Non-Financial Reporting Directive (NFRD, 2014/95/EU). *Accounting in Europe, 19*(2), 332–361. https://doi.org/10.1080/17449480.2022.2065645

Březinová, H. (2023). *ESG a účetní souvislosti*. Wolters Kluwer.

Chenavaz, R. Y., Couston, A., Heichelbech, S., Pignatel, I., & Dimitrov, S. (2023). Corporate social responsibility and entrepreneurial ventures: A conceptual framework and research agenda. *Sustainability, 15*(11), 8849. https://doi.org/10.3390/su15118849

Coelho, R., Jayantilal, S., & Ferreira, J. J. (2023). The impact of social responsibility on corporate financial performance: A systematic literature review. *Corporate Social Responsibility and Environmental Management, 30*(4), 1535–1560. https://doi.org/10.1002/csr.2446

Coface. (2024). Coface CEE Top 500: Žebříček předních společností v náročném ekonomickém prostředí. https://www.coface.cz/novinky-ekonomika-a-postrehy/coface-cee-top-500-zebricekprednich-spolecnosti-v-narocnem-ekonomickem-prostredi

Dempere, J., Udjo, E., & Mattos, P. (2024). The entrepreneurial impact of the European Directive on Corporate Sustainability Due Diligence. *Administrative Sciences, 14*(10), 266. https://doi.org/10.3390/admsci14100266

Eccles, R. G., & Krzus, M. P. (2010). *One report: Integrated reporting for a sustainable strategy*. John Wiley & Sons.

Ellili, N. O. D. (2022). Bibliometric analysis and systematic review of environmental, social, and governance disclosure papers: Current topics and recommendations for future research. *Environmental Research Communications, 4*(9), 092001. https://doi.org/10.1088/2515-7620/ac8b67

Fiandrino, S., Gromis di Trana, M., Tonelli, A., & Lucchese, A. (2022). The multi-faceted dimensions for the disclosure quality of non-financial information in revising Directive 2014/95/EU. *Journal of Applied Accounting Research, 23*(1), 274–300. https://doi.org/10.1108/JAAR-04-2021-0118

Fiechter, P., Hitz, J.-M., & Lehmann, N. (2022). Real effects of a widespread CSR reporting mandate: Evidence from the European Union's CSR Directive. *Journal of Accounting Research, 60*(4), 1499–1549. https://doi.org/10.1111/1475-679X.12424

Khamisu, M. S., Paluri, R. A., & Sonwaney, V. (2024). Environmental, social and governance (ESG) disclosure motives for environmentally sensitive industry: An emerging economy perspective. *Cogent Business & Management, 11*(1), 2322027. https://doi.org/10.1080/23311975.2024.2322027

Khan, H. H. A., Ahmad, N., Yusof, N. M., & Chowdhury, M. A. M. (2024). Green finance and environmental sustainability: A systematic review and future research avenues. *Environmental Science and Pollution Research, 31*(6), 9784–9794. https://doi.org/10.1007/s11356-023-31809-6

Korca, B., & Costa, E. (2021). Directive 2014/95/EU: Building a research agenda. *Journal of Applied Accounting Research, 22*(3), 401–422. https://doi.org/10.1108/JAAR-05-2020-0085

Kotsantonis, S., & Serafeim, G. (2019). Four things no one will tell you about ESG data. *Journal of Applied Corporate Finance, 31*(2), 50–58. https://doi.org/10.1111/jacf.12346

Laique, U., Abdullah, F., Rehman, I. U., & Sergi, B. S. (2023). Two decades of research on board gender diversity and financial outcomes: Mapping heterogeneity and future research agenda. *Corporate Social Responsibility and Environmental Management*, *30*(5), 2121-2144. https://doi.org/10.1002/csr.2510

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *biometrics*, 159-174. https://doi.org/10.2307/2529310

Matzner, J. (2024). Nefinanční reporting a CSRD směrnice. *epravo.cz*. https://www.epravo.cz/top/clanky/nefinancni-reporting-a-csrd-smernice-117800.html

Monteiro, A. P., Vale, J., Leite, E., Lis, M., & Kurowska-Pysz, J. (2022). The impact of information systems and non-financial information on company success. *International Journal of Accounting Information Systems*, *45*, 100557. https://doi.org/10.1016/j.accinf.2022.100557

Nicolo, G., Zampone, G., Sannino, G., & Polcini, P. T. (2025). Ready for change after the omnibus package? Early compliance with the European sustainability reporting standards and its key determinants in the new regulatory era. *Business Strategy and the Environment*, *34*(7), 9040-9058. https://doi.org/10.1002/bse.70054

O'Neill, S. (2023). What is the difference between CSR and ESG? Corporate Governance Institute. https://www.thecorporategovernanceinstitute.com/insights/lexicon/what-is-the-difference-between-csr-and-esg/

Ors, F. (2024). *Smarter Alternative Investments: Upgrade Your Money and Your Life*. Simon and Schuster.

Ottenstein, P., Erben, S., Jost, S., Weuster, CW a Zülch, H. (2022). From voluntarism to regulation: effects of Directive 2014/95/EU on sustainability reporting in the EU. *Journal of applied accounting research*, *23*(1), 55–98. https://doi.org/10.1108/JAAR-03-2021-0075

Pacces, A. M. (2023). Civil liability in the EU Corporate Sustainability Due Diligence Directive Proposal: a law & economics analysis. *European Corporate Governance Institute-Law Working Paper*, (691). https://doi.org/10.2139/ssrn.4391121

Peyton Legal. (2023). CSRD, NFRD a CSSD – čím se zabývají směrnice EU o udržitelnosti? https://www.peytonlegal.cz/csrd-nfrd-a-cssd-cim-smernice-eu-o-udrzitelnosti/

PlanA. (2024). European Sustainability Reporting Standards (ESRS). https://plana.earth/policy/esrs-european-sustainability-reporting-standards

Pratiwi, A. P., & Edeh, F. O. (2024). The role of ESG disclosure in corporate performance and investment decision-making. *Sinergi International Journal of Accounting and Taxation, 2*(1), 1–14. https://doi.org/10.61194/ijat.v2i1.476

PwC. (2025). *Global sustainability reporting survey 2025: From insight to value – The sustainability reporting journey continues*. https://www.pwc.com/gx/en/issues/esg/global-sustainability-reporting-survey.html

Saini, N., & Kharb, R. (2026). Strategic enablers for ESG adoption: A modified TISM perspective. *Journal of Financial Reporting and Accounting, 24*(3), 1312-1346. https://doi.org/10.1108/JFRA-06-2024-0349

Sánchez G. (2018). Sustainability as an innovative key element: Another perspective to rethink the problem of hunger and poverty in the world. *Journal of Innovation & Knowledge, 3*(3), 166–173. https://doi.org/10.1016/j.jik.2017.12.002

Sarti, S., Darnall, N., & Testa, F. (2018). Market segmentation of consumers based on their actual sustainability and health-related purchases. *Journal of Cleaner Production, 192*, 270–280. https://doi.org/10.1016/j.jclepro.2018.04.188

Seow, R. (2024). Unveiling the complexities of ESG and CSR disclosures determinants: A systematic literature review. *Journal of Technology Management and Business*, *11*(1), 49-79. https://doi.org/10.30880/jtmb.2024.11.01.004

Serafeim, G. (2022). *Purpose and profit: How business can lift up the world*. HarperCollins Leadership.

Tetřevová, L. (2017). *Společenská odpovědnost firem společensky citlivých odvětví*. Grada Publishing.

Tsang, A., Frost, T., & Cao, H. (2023). Environmental, social, and governance (ESG) disclosure: A literature review. *The British Accounting Review, 55*(1), 101149. https://doi.org/10.1016/j.bar.2022.101149

Tuškan Sjauš, B., Zlovolić, M., & Krišto, J. (2024). Implications Of The Social Factor In The Context Of Sustainable And Responsible Investments And Business. *Ekonomska misao i praksa*, *33*(1), 297-325. https://doi.org/10.17818/EMIP/2024/1.14

Venturelli, A., Fasan, M., & Pizzi, S. (2022). Guest editorial: Rethinking non-financial reporting in Europe: Challenges and opportunities in revising Directive 2014/95/EU. *Journal of Applied Accounting Research, 23*(1), 1–7. https://doi.org/10.1108/JAAR-02-2022-265

Voráček, S. (2025). A historical overview of non-financial reporting. *Business & IT, 15*(1). https://doi.org/10.14311/bit.2025.01.05

Dr. sc. Milena Otavová

Izvanredna profesorica
Mendelovo sveučilište u Brnu, Češka Republika
Fakultet poslovne administracije
E-mail: milena.otavova@mendelu.cz
Orcid: https://orcid.org/0000-0003-2481-479X

Dr. sc. Jana Gláserová

Izvanredna profesorica
Mendelovo sveučilište u Brnu, Češka Republika
Fakultet poslovne administracije
E-mail: jana.glaserov@gmail.com
Orcid: https://orcid.org/0000-0001-5038-8347

ESG IZVJEŠTAVANJE U ODABRANIM SEKTORIMA: EMPIRIJSKI DOKAZI IZ ČEŠKE REPUBLIKE

Sažetak

Rad se usredotočuje na procjenu kvalitete i opsega izvještavanja o održivosti u odabranim tvrtkama u Češkoj Republici iz četiriju sektora: kemijske, energetske, automobilske i agroindustrije. Cilj je procijeniti razvoj izvještavanja u razdoblju od 2017. do 2024. godine, osobito u kontekstu direktiva NFRD i CSRD, te utvrditi razlike među sektorima i tvrtkama. Istraživanje kombinira analizu sadržaja godišnjih izvješća i kvalitativnu procjenu primjenom bodovne ljestvice koja odražava razinu obuhvata pojedinih područja ESG izvještavanja. Rezultati pokazuju rast količine i kvalitete izvještavanja u svim promatranim sektorima, pri čemu je najizraženiji napredak zabilježen u energetskoj i automobilskoj industriji. Analizom odnosa između financijskih pokazatelja i opsega izvještavanja o održivosti, primjenom Pearsonova koeficijenta korelacije, utvrđena je pozitivna povezanost, osobito u odnosu na imovinu i kapital.

Ključne riječi: ESG, NFRD, CSRD, sektor, održivost, izvješće, Češka Republika.

JEL klasifikacija: M48, M14, Q01, G20, G30.