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ESG Reporting: Assessing Compliance of Polish Public Companies with EU Taxonomy Guidelines

1. Introduction

Environmental, social and corporate governance (ESG) issues are now one of the key areas of interest for managers, the public and the scientific community, as reflected in numerous academic publications (Chen & Xie, 2022; Ellili, 2022; Li, 2021; Hoang, 2018). Increasing environmental pressures and side effects of business, growing public awareness of these issues and increasingly restrictive laws are contributing to new efforts with the common goal of reducing the negative impact of corporate activities and, where possible, eliminating them altogether. A practical manifestation of companies' commitment to ESG is taking initiatives to implement solutions, monitor effects and report in the areas of corporate social responsibility (CSR) and sustainable development. ESG is now also an important field of scientific exploration (Jain & Tripathi, 2023; Khan, 2022; Senadheera et al., 2022). The intensification of ESG efforts on the part of companies as well as academia is the result of regulations that require the former to disclose non-financial information. Given the timetable for bringing an increasing number of companies under this obligation,

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an important practical as well as research problem is the organizational preparation of companies for ESG reporting. The purpose of this article is to assess the compliance of non-financial reporting and ESG disclosures of public companies listed on the Warsaw Stock Exchange (WSE) with the requirements of the EU Taxonomy[1] (European Parliament, 2020: Regulation 2020/852). Based on data made available on the Instrat Foundation portal, the compliance of ESG indicators reported by WSE-listed companies within the three largest indices[2] with the assumptions and guidelines of the EU Taxonomy was assessed.

2. Review of literature on ESG and non-financial disclosure reporting

The concept of ESG referring to three main aspects, i.e. environmental, social and corporate governance (ESG) first appeared in the "Who Cares Wins" report in 2004 (Jain & Tripathi, 2023, p. 397). The report, issued by the United Nations in cooperation with the Federal Department of Foreign Affairs of Switzerland, provided a diagnosis and recommendations on the performance of public companies in integrating ESG measures. According to the report's authors' recommendations, an integrated approach including ESG aspects was expected to lead to more sustainable markets and better corporate performance (Kell, 2021). The relationship between ESG and financial performance (financial performance) has been one of the main research areas in the field ever since (Signori et al.; 2021; Alsayegh et al.; 2020, Fatemi et al.; 2018; Wong et al.; 2020; Friede et al., 2015).

Measuring the effects of ESG efforts is a significant challenge in this regard. Public company performance indexes that report on non-financial disclosure (NFD) activities using global standards such as the Global Reporting Initiative (GRI) or the European Sustainability Reporting Standards (ESRS for short) are proving helpful. The indexes are available, among others, in Morgan Stanley Capital International's databases (MSCI: msci.com) - formerly operating as the KLD and GMI databases). Previous research has shown that companies with better ESG performance (broader scope of activities, monitoring of progress, transparent reporting of results) are simultaneously characterized

1 Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on establishing a framework to facilitate sustainable investment, amending Regulation (EU) 2019/2088 - for the purposes of this paper, the short form will be used: EU Taxonomy.

2 WIG20, mWIG40, sWIG80.

by lower barriers to raising capital (Cheng et al., 2014), or a lower cost of debt (Eliwa et al., 2022).

The popularity of ESG concerns in the narrower sense, related to non-financial reporting, is evident in both foreign (Raimo et al., 2023; Doni et al., 2020; Gao et al., 2015; Orens et al., 2010) and Polish research (Kawacki, 2023; Różanska, 2022; Błażyńska, 2019; Skoczylas, 2019; Rubik, 2018; Śnieżek et al., 2018; Lament, 2017; Fijałkowska, 2016; Świderska et al., 2016; Walińska, 2015). These studies unequivocally show, firstly, an increase in the percentage of entities making non-financial information public (Fijałkowska, 2019), secondly, an increase in the importance of non-financial reporting for value creation and overall evaluation of companies (Bek-Gaik & Rymkiewicz, 2015; Fijałkowska & Zyznarska-Dworczak, 2017) and the need for standardization in reporting (Różanska, 2015; Tschopp & Nastanski, 2014; Michalak, 2010). As with ESG, non-financial reporting as a subject of academic research has been extensively studied using meta-analysis methods (Diwan & Sreeraman, 2023; Turzo et al., 2022; Jackson et al., 2020; Fijałkowska et al., 2019; Manes-Rossi, 2018 Erkens et al., 2015). Issues of non-financial reporting requirements in Polish realities were the subject of academic research in the 1980s (Jaruga, 1984; Jaglińska, 1984). To date, the topics of non-financial reporting have included such issues as: reflection of CSR activities in accounting, the role of accounting in the development of CSR, measures of the effectiveness of CSR communication with stakeholders, measurement of the effects of CSR activities, the quality and content of non-financial reports, non-financial reporting in light of legitimacy theory, disclosure of CSR activities in financial statements and other reports, factors influencing the development of non-financial reporting, non-financial reporting and the creation and measurement of an entity's value and economic performance, or, finally, disclosure of CSR activities in light of the NFRD (Fijałkowska et al., 2019, pp. 104-106). Considering the consequences of the development of the research issue, which is strongly connected and is largely due to changes in non-financial reporting obligations and guidelines, currently an important research problem is the compliance of non-financial information disclosed in corporate reports with the EU Taxonomy. It therefore becomes necessary to define the key scope of non-financial information for the subject of research, which can be classified according to the division into three key areas - environmental, social and corporate governance (table 1).

Given the dynamic development of ESG and non-financial reporting in this area, it is also worth pointing out future research directions in the subject area (Li et al., 2023):

- clarification of key definitions related to the ESG concept,
- consolidation of the theoretical-cognitive layer,
- deepening the research problems explored so far,
- improving systems for evaluating ESG activities,
- detailed ESG practices used by organizations.

An important subject of consideration in the context of ESG and non-financial reporting are legal regulations that provide a formal framework for companies undertaking ESG-related activities. In particular, these are legal acts established by European Union (EU) bodies - the European Commission (EC), the Council of the European Union (CJEU) and the European Parliament (EP), such as:

- a package of policy initiatives constituting the so-called European Green Deal[3],
- NFRD Directive (Directive 2014/95/EU),
- CSRD Directive (Directive 2022/2464),
- EU Taxonomy (Regulation 2020/852),
- SFDR Regulation (Regulation 2019/2088),
- ESRS reporting standards (Regulation 31/7/2023),
- EC and EP guidelines (Commission Communication 2019/C 209/01).

EU regulations are reflected in Polish law through the implementation of the NFRD directive in The Accounting Act (Ustawa z dnia 29 września 1994 r. o rachunkowości… 1994). A key to the issue of non-financial reporting is the European Commission's 2014/95/EU Non-Financial Reporting Directive (NFRD). It requires all public companies to disclose information covering three key aspects - environmental, social and corporate governance (European Parliament, 2014: Directive 2014/95/EU). The premise of the NFRD was:

- to provide stakeholders with access to information on the impact of entities (companies) on society,
- allowing stakeholders to compare non-financial information in the subject area,
- adopt flexible solutions to take into account the multidimensional nature of corporate social responsibility and the diversity of social responsibility strategies implemented by companies,

3 The following initiatives in particular should be mentioned here: Ready for 55; European Climate Law; EU Climate Change Adaptation Strategy; EU Biodiversity Strategy 2030; Farm-to-Table Strategy; European Industrial Strategy; Closed Cycle Economy Action Plan; New and Used Batteries Regulations; Just Transition; Clean, Affordable and Secure Energy; EU Chemicals Strategy for Sustainability; Forestry Strategy vs. Deforestation (compiled from: European Council, 2024).

- the provision by EU member states of effective national procedures to enforce the regulations in question, which translated into changes in Polish legislation, including in particular the provisions contained in the Accounting Act (Błażejewska, 2022).

Given the subject of non-financial disclosure guidelines and requirements for entities, the EU Taxonomy, a system of uniform classification of sustainability activities through which investors will be able to obtain transparent information on the share of environmentally sustainable activities undertaken by companies, plays a key role in this regard. The EU Taxonomy is thus designed to support investors in making investment decisions. The legal basis for the taxonomy's operation is Regulation 2020/852 of the European Parliament and of the European Union Council of 18 June 2020 on establishing a framework to facilitate sustainable investment. The regulation imposes a number of reporting obligations on financial market participants for which the SFDR regulation applies and companies subject to the NFRD. Compliant companies (large public interest entities) are required to determine the percentage of turnover, capital expenditures (CapEx) and operating expenditures (OpEx) in a given reporting year relative to assets or processes that contribute to the achievement of environmental goals. Six such specific targets have been identified. These are (European Parliament, 2019: Regulation 2019/2088, Article 9):

- climate change mitigation,
- climate change adaptation,
- sustainable use and protection of water and marine resources,
- transition to a closed-loop economy,
- pollution prevention and control,
- protection and restoration of biodiversity and ecosystems.

Their achievement is to be made possible by conducting environmentally sustainable activities. Its scope has been defined in detail by the European Commission through technical qualification criteria. They are specialized guidelines for specific activities, which indicate the prerequisites that an activity that complies with the EU Taxonomy must meet. Each of the six objectives has a separate set of guidelines. Selected companies will be required to fully report eligibility and compliance with the EU Taxonomy starting in 2025 - the report for fiscal year 2024. Disclosures for the first two goals occurred in 2022-2023. Given the temporal proximity of the publication of the first full reports covering ESG aspects, it is reasonable to analyze the degree of compliance of non-financial disclosures with the EU Taxonomy, which is the subject of the study's empirical research and its main part. Environmentally sustainable activities that comply with the EU Taxonomy must (European Parliament, 2019: Regulation 2019/2088, Articles 10-19):

- have a significant impact on one of the environmental objectives identified,
- not cause serious harm to other environmental objectives (Do No Significant Harm principle),
- meet the technical qualification criteria defined by the European Commission in the acts delegated to the EU Taxonomy, specifying the conditions for considering an activity as compliant,
- be conducted in accordance with minimum social guarantees.

Table 1. ESG aspects, relevant determinants and definitions

Aspect	Relevant determinants	Definition
Environmental	• Greenhouse gas emissions • Energy consumption and energy efficiency • Air pollution • Water consumption and recycling • Waste production and waste management (liquid, solid, hazardous) • Biodiversity • Impact on ecosystems • Innovative and environmentally friendly products and services	Environmental issues that may have a positive or negative impact on the financial performance or solvency of the entity - the company.
Social	• Freedom of association of workers • Child labor • Forced labor • Occupational health and safety • Consumer safety and health • Discrimination, diversity and equality in the workplace • Development opportunities in the workplace • Poverty and community impact • Supply chain management • Training and education • Data protection	Social issues that may have a negative or positive impact on the financial performance or solvency of the entity - the company.

Governance	• Codes of conduct and business principles • Business accountability • Transparency and disclosure • Remuneration principles • Diversity and structure of corporate bodies • Corruption and bribery • Stakeholder engagement • Shareholder rights	Corporate governance issues that may have a negative or positive impact on the financial performance or solvency of the entity - the company.

Source: Li et al., 2023

The amendment of The Accounting Act of December 15, 2016 allowed for the implementation of the provisions of the NFRD in Poland. Article 49b. point 1. of the same law (Ustawa z dnia 29 września 1994 r. o rachunkowości…, 1994) specifies in detail the methods and subject and object scopes for the preparation of financial statements containing "additionally in the report on operations - as a separate part - a statement on non-financial information." Section 2 of the cited provision clarifies the elements included as non-financial information. These are:

- a brief description of the entity's business model,
- key non-financial performance indicators related to the entity's operations,
- a description of the entity's policies with respect to social, labor, environmental, respect for human rights and anti-corruption issues, as well as a description of the results of the application of these policies,
- description of due diligence procedures,
- a description of significant risks associated with the entity's operations that may have an adverse impact on ESG issues.

This puts companies in the necessity of making significant expenditures in terms of organizational preparation for non-financial reporting, preceded by reliable development of a methodology covering activities to be monitored, specific indicators to assess progress in this regard. However, the key challenge from the perspective of companies is to adapt to the guidelines covering standards of activity in the areas of environmental, social and corporate governance, and to be subject to multi-criteria comparisons with other entities - competitors, which is to be guaranteed by transparency and making public ESG reports - dedicated as well as integrated.

3. Methods

As of September 27, 2023, there were a total of 3,860 companies in Poland (Instrat Foundation, 2024) that will be subject to non-financial reporting in 2024-2026. Analysis of the data of public companies in Poland and abroad allows us to identify a significant gap in terms of organizational preparedness in this regard. Organizational preparedness of companies should be understood as the readiness of a company to make public ESG indicators constructed in accordance with the EU Taxonomy. Only about 10% of the information disclosed by Polish companies complies with the guidelines in question.

With the data available on the Instrat Foundation portal (esg.instrat.pl), it is possible to analyze in detail the situation regarding the compliance of disclosures with the EU Taxonomy. Given the above, it can be assumed that the utilitarian purpose of the article is to diagnose the situation in the group of Polish public enterprises.

The assessment of the level of compliance of the surveyed companies with the EU Taxonomy was carried out on the basis of data made available on the Instrat Foundation portal (esg.instrat.pl). The key assumption according to which the degree of readiness of a given company was determined is the compliance of indicators developed and subsequently published in the form of non-financial reports, covering the three key scopes: environmental, social, corporate governance, with the guidelines of the EU Taxonomy. Based on the available data, simple indicators showing the percentage of compliance in these scopes were calculated for subsequent structural analysis.

Reporting entities (companies) disclose two basic information about their non-financial activities:

- information about activities that qualify for the EU Taxonomy,
- information about activities that comply with the EU Taxonomy.

An eligible activity is one that is recognized in the EU Taxonomy Regulation and delegated acts as an activity that has an impact on the climate, and which is therefore assessed for compliance with the EU Taxonomy. In contrast, activities that meet the criteria established in the EU Taxonomy (and delegated acts) for environmentally sustainable activities are considered to be compliant with the EU Taxonomy. Measurement of compliance of the reporting units' activities is carried out by means of three performance indicators according to the criterion:

- turnover (revenue),
- capital expenditures (CapEx),
- operating expenses (OpEx).

Indicators represent the share of activities that comply with the EU Taxonomy given one of three criteria.

It was decided to narrow the study group of public companies to the three main WSE indices: WIG20, mWIG40 and sWIG due to the timing of mandatory non-financial disclosures - the largest public companies first. Taking into account the issue of compliance and eligibility of companies' activities with the EU Taxonomy, the size of the study group was further expanded to include companies that had disclosed information on compliance with the EU Taxonomy in previous years. Based on the Instrat Foundation's data, 122 companies were identified that disclosed information on activities compliant with the EU Taxonomy in the first half of 2023. 111 of them are non-financial companies, while the remaining 11 are financial institutions. For the purposes of further analysis, companies that are financial institutions were discarded due to their different disclosure obligations. The structure of the analyzed companies by the criterion of the represented macrosector (according to the classification of the WSE) is presented in figure 1.

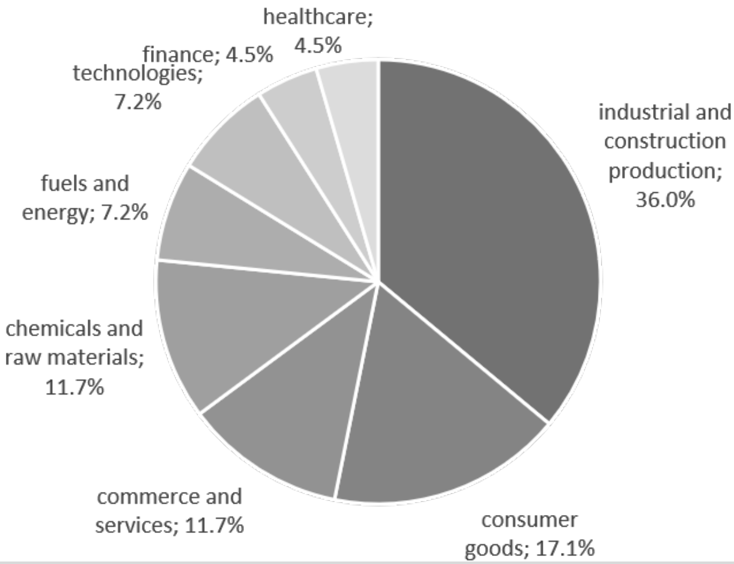

Figure 1. Structure of the surveyed companies by the criterion of the represented sector

Source: own work based on data from the Instrat Foundation (2024)

4. Results and discussion

According to the declarations of reporting units, the share of activities compliant with the EU Taxonomy does not exceed 10% in any of the three criteria - turnover, capital expenditures (CapEx), operating expenses (OpEx) (figure 2). When analyzing the share of non-compliant but eligible activities, the situation looks best in the case of the indicator on capital expenditures. This is important because they relate to the future effects of companies' activities, which are derived from investments currently being made. The average values of activities complying with the EU Taxonomy (figure 3) range between 8% for turnover and 12% for capital expenditures, for qualifying activities between 21% (turnover) and 32% (capital expenditures). Comparing these figures with those of companies listed on the STOXX Europe 600 index, the share ratios of disclosures in line with the EU Taxonomy of companies listed on the WSE do not differ significantly from the pan-European average (Instrat Foundation, 2024).

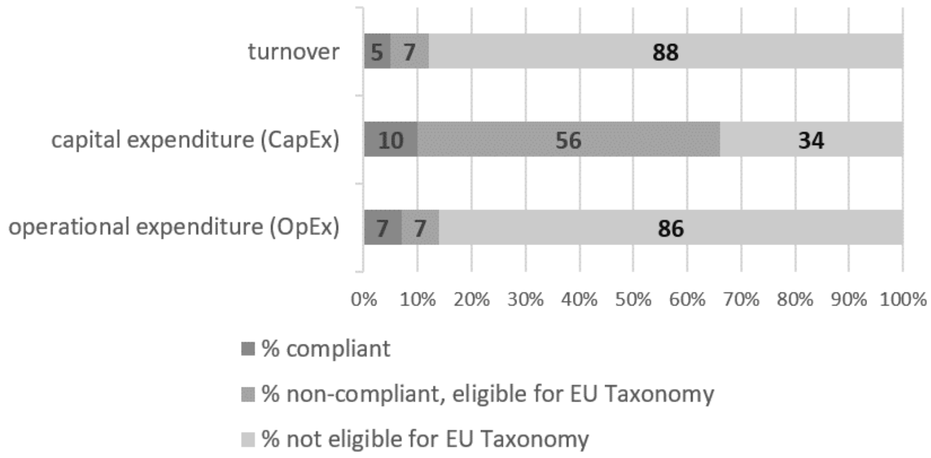

Figure 2. Share of compliant and EU Taxonomy-eligible activities of surveyed non-financial companies

Source: own work based on data from the Instrat Foundation (2024)

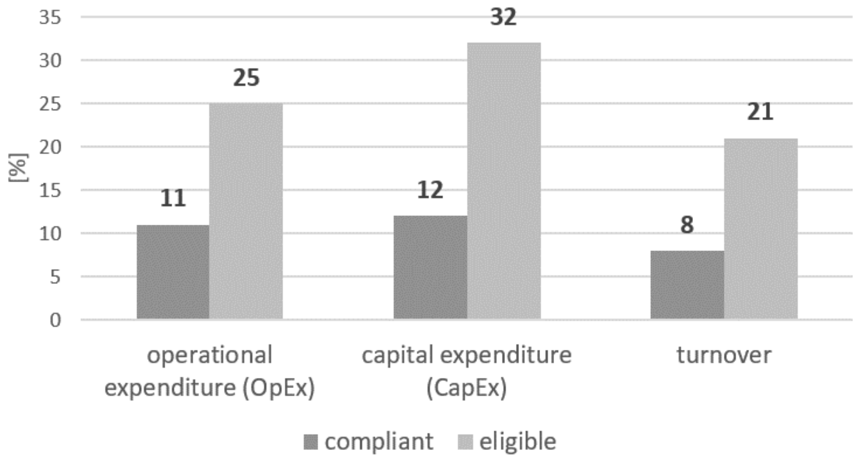

Figure 3. Average values of compliance and eligibility of the surveyed entities' activities with the EU Taxonomy

Source: own work based on data from the Instrat Foundation (2024)

However, the share of activities complying with the EU Taxonomy differs significantly taking into account the sector criterion - table 2. In accordance with the classification of the WSE, the analysis was made according to the division into macroeconomic sectors. The shares of the amount of capital expenditures (CapEx) and operating expenditures (OpEx) compatible and eligible for the EU Taxonomy are shown in table 2. As in the case of the turnover criterion, there is a clear differentiation between macroeconomic sectors in this regard.

Table 2. Percentage of activities complying with the EU Taxonomy in the group of surveyed companies

Macrosector according to the WSE classification	Criterion											
	Turnover				CapEx				OpEx			
	A	B	C	D	A	B	C	D	A	B	C	D
Chemicals and raw materials	7.0	4.0	89.0	100.0	3.0	23.0	74.0	100.0	34.0	6.0	60.0	100.0
Consumer goods	2.0	0.0	98.0	100.0	2.0	13.1	84.9	100.0	2.0	2.0	96.0	100.0
Finance	0.0	27.0	73.0	100.0	0.0	64.0	36.0	100.0	6.0	0.0	94.0	100.0
Commerce and services	1.0	0.0	99.0	100.0	1.0	5.0	94.0	100.0	4.0	4.0	92.0	100.0
Healthcare	0.0	0.0	100.0	100.0	7.0	6.0	86.0	99.0	8.0	0.0	92.0	100.0
Fuels and energy	5.0	7.0	88.0	100.0	13.0	10.0	77.0	100.0	3.0	2.0	95.0	100.0
Industrial and construction production	18.0	29.0	53.0	100.0	10.0	10.0	80.0	100.0	6.0	19.0	75.0	100.0
Technologies	5.0	11.0	84.0	100.0	3.0	10.9	86.1	100.0	2.0	15.2	82.8	100.0

Where:
A – compliant with EU Taxonomy; B – non-compliant, eligible for EU Taxonomy; C – not eligible for EU Taxonomy; D - total

Source: own work based on data from the Instrat Foundation (2024)

Table 1 allows for a complex examination of how different sectors align with the ESG criteria mandated by the EU. Notably, sectors like chemicals and raw materials, as well as industrial and construction production, exhibit comparatively higher levels of compliance with the EU Taxonomy (7% and 18% of their turnover respectively). This suggests these sectors possess substantial adaptive capacity and infrastructure conducive to integrating advanced ESG standards, potentially facilitated by access to sophisticated technologies and emission-reduction strategies. Conversely, sectors such as finance and healthcare demonstrate lower compliance rates (0% for both).

This observation may reflect sector-specific priorities emphasizing financial or healthcare-related imperatives over direct adherence to ecological guidelines stipulated by the EU Taxonomy. Furthermore, the commerce and services sector, alongside technology-intensive sectors, displays intermediate compliance rates, indicating ongoing potential for further assimilation and advancement of ecological innovations. The disparities between these categories across sectors underscore the diverse approaches and challenges in achieving EU Taxonomy compliance. Sectors heavily reliant on capital-intensive projects (CapEx) may prioritize initial investments in green technologies, whereas sectors with significant operational costs (OpEx) may focus on continuous improvement and efficiency gains in resource utilization. Understanding these nuances is crucial for formulating targeted policies and incentives that promote broader adoption of sustainable practices across different sectors of the economy. In summary, these findings underscore the sector-specific variability in complying with the EU Taxonomy's standards. They highlight the necessity for tailored strategies that accommodate diverse sectoral priorities while striving for comprehensive ecological integration across the broader economic landscape.

5. Conclusions

For the first time, the largest public companies in Poland (as well as in the entire EU) had to disclose the extent to which their activities comply with the EU Taxonomy in their 2022 reports. The EU Taxonomy is an EU classification system that establishes criteria for recognizing particular activities as environmentally sustainable. The guidelines adopted in the EU Taxonomy set the standard for the climate impact of business activities. In doing so, non-compliance with this classification does not imply a negative climate impact. Although the disclosures included in the entities' reports are mere declarations, they should be treated as objective information that meets the guidelines under EU and national law. Analysis of the detailed data disclosed in the 2022 corporate reports allows us to draw key conclusions, namely:

- the relatively low proportion of activities of the surveyed companies, measured as a share of turnover (5%), capital expenditures (10%) and operating expenses (7%), is in line with the EU Taxonomy,
- the largest share of non-compliant but qualifying as environmentally sustainable activities according to the EU Taxonomy guidelines relates to capital expenditures (56%),

- the shares of compliant and non-compliant but qualifying activities vary significantly among the different sectors represented by the surveyed entities,
- a high share of compliant and non-compliant but qualifying activities characterizes companies in the industrial production and construction, chemicals and raw materials, technology, and fuel and energy sectors, which have a relatively high environmental impact,
- companies specializing in the provision of services are characterized by lower shares of compliant and non-compliant but qualify as environmentally sustainable activities, the exception being companies in the financial sector, for which the share of activities measured by the three measures is significantly higher than the other groups of surveyed entities.

As the regulatory landscape evolves, an increasing number of entities are mandated to disclose non-financial information. This compels companies to implement robust frameworks for gathering and reporting such data, presenting both a formidable challenge and a potential opportunity. Research abroad indicates that companies excelling in ESG (Environmental, Social, and Governance) domains reap significant financial benefits, including reduced cost of capital and enhanced access to financing. Transparent ESG activities not only bolster corporate reputation among customers and investors but also align with broader objectives of mitigating environmental footprints and fostering resilient social capital. Public enterprises play a pivotal role in advancing these objectives, underscoring their essential contribution to sustainable development.

Abstract

The paper aims to evaluate how well Polish public companies' activities align with the European Union Taxonomy guidelines (EU Taxonomy). The research involved a review of literature on ESG and non-financial reporting, identification of key guidelines for mandatory disclosures, and analysis of reports from companies listed on the Warsaw Stock Exchange's three main indices. This approach allowed for determining the shares of activities that meet the EU Taxonomy's compliance and eligibility criteria, focusing on turnover, capital expenditures (CapEx), and operating expenditures (OpEx). The research shows a relatively low percentage of activities compliant with the EU Taxonomy among the studied companies. There are significant sectoral differences in the level of compliance of companies activity with the EU Taxonomy, with compliance level highest in industries with substantial environmental impacts (like industrial production and construction) and lowest in sectors with limited environmental effects (such as finance and healthcare). A key limitation is the analysis's scope, which covers only one year's reports due to the non-financial reporting standards' implementation schedule. Continuous monitoring of this issue is necessary. The ESG activities of companies are crucial from the perspective of building competitive advantage, influencing customer awareness, meeting consumer expectations or finally meeting non-financial reporting requirements, but involve complex processes, including operationalization, implementation, monitoring, and auditing of ESG practices. Non-financial reporting entails significant direct and indirect costs. Non-financial reporting enhances the transparency of companies' operations and is likely to influence company ratings for investment purposes. However, the costs associated with reporting could lead to higher prices and potentially burden consumers. The article addresses a current, practical problem faced by companies required to conduct non-financial reporting. It is relevant for various stakeholders, including consumers, shareholders, business partners, and financiers.

Keywords: *ESG, non-financial disclosure, EU Taxonomy, public companies.*

JEL Classification: Q56.

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